

WEEK
AGO

U.S. AD

BUSINESS WEEK

YEAR
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While official solutions to manpower problem evolve slowly, Kaiser rolls his own — transcontinental hiring (page 74).

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Are the Germans better men than we are?

The United Nations used to have the most of everything—metals, oil, food, machinery. Yet the Axis, with the short end, took so much away from us that now they control more of many vital supplies than we do. They had less, yet made themselves stronger because they worked harder and longer, and did without luxuries. "Guns instead of butter!" Now they have the guns, and have used them to *take* the butter—and they'll use them to take the cars and savings and liberty from you and me, unless . . .

...unless you and I and every man and woman in this country do what the Axis people did—produce more with the less we have—and do it quickly.

We can't win the war with what we *had*, but only by what we *do* with what we have left. That can be done only by faster work, more hours, more accurate work, and refusal to use up anything we can live without.

That's why the war—and your family's very life—is being decided now, at *your machine*.

World Production Between Allied and Axis Powers at Beginning of War and at Present Time

	Prewar		Present	
	Allies	Axis	Allies	Axis
Pig Iron	74%	26%	43%	57%
Steel	73%	27%	50%	50%
Aluminum	68%	32%	42%	58%
Copper	93%	7%	84%	16%
Tin	100%	2	35%	65%
Magnesium*	43%	57%	32%	68%
Tungsten*	94%	6%	64%	36%
Petroleum	100%	2	84%	16%
Rubber	100%	2	11%	89%
Wheat	94%	6%	62%	38%
Potatoes	73%	27%	21%	79%
Cattle	96%	4%	76%	24%

* Total Russian output credited to Allies.

2 Less than 1 per cent



**WARNER
&
SWASEY**
Turret Lathes
Cleveland

YOU CAN TURN IT BETTER, FASTER, FOR LESS . . . WITH A WARNER & SWASEY



... So They Married the Truck and the Train!

A typical example of B. F. Goodrich leadership in truck tires

TAKE a good look at this brand new transportation idea, a development of the Evans Products Co. Truck and train in one, the Auto-Railer* combines the leading advantages of both. It's as much at home on the highway as it is on rails—can be shifted from one to the other in a matter of seconds.

But is it practical? Uncle Sam says yes. For today at some of America's largest arsenals, movements of shells and explosives that would ordinarily be handled by truck and train are quickly hauled by this unusual unit *alone* with no transfer operation required.

On the highway, B. F. Goodrich tires entirely support unit and load—on rail, the tires support 80 per cent of the total weight, the flanged steel wheels serving principally as guide wheels.

And what about these tires that cushion the shocks? They're *special* tires designed by B. F. Goodrich engineers—tires that give six times more traction on rails than conventional steel

wheels. And because of their unusual non-skid tread design, they stop the unit on rails as quickly as you can stop your car on the highway!

Here is just one example of the countless ways in which the research and engineering genius of America's oldest tire manufacturer is serving America's war effort. Yes . . . we've gone "all out" for victory. But that includes supplying *essential* civilian requirements! Today, we're continuing to make—in accordance with government specifications—the very finest truck tires we know how to build to help you "keep 'em rolling."

When you are permitted to buy tires, you can help conserve rubber and at the same time save yourself money by insisting on B. F. Goodrich Speedliner Silver-towns. Speedliners are the *only* truck tires fortified with Duramin, the amaz-

ing chemical discovery that keeps rubber young and tough, s-t-r-e-t-c-h-e-s tire life.

See the B. F. Goodrich man *first*, for B. F. Goodrich is First in Rubber.

Free Motion Picture

Would you like to arrange a showing to your organization of the dramatic story of motor transportation and its role in America at war? B. F. Goodrich has just completed a 25-minute film called "Keep 'em Rolling" which tells a fast-moving story of transportation today and concludes with helpful information on tire conservation. Write for information giving approximate size of audience. There is no charge for showings. Write Dept. No. T-120, The B. F. Goodrich Company, Akron, Ohio.

In war or peace

B.F. Goodrich

FIRSt IN RUBBER

*Registered trade mark of Evans Products Co., Detroit, Mich., manufacturers of the Auto-Railer.

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"...and, after
the war, I'm planning
to screen it!"

Here's a simple scene, as plain and homey and American as apple pie. Could be going on this minute in a hundred U. S. towns.

But there's something mighty unusual, and mighty important, about it just the same. It says that here in the democratic U. S. a citizen can go ahead and *plan*. No ruthless higher-ups can snatch him, without warning, from his setting. For the Constitution he lives under says that neither his life . . . nor his liberty . . . nor his property shall be taken from him "without due process of law."

You'll find this famous 3-ply guarantee in Article V of the Bill of Rights; and you'll find SKF workers feverishly making bearings to help keep it there.

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BALL AND ROLLER
BEARINGS

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A McGRAW-HILL PUBLICATION

Business Week • October 3, 1942

WASHINGTON BULLETIN

WHAT THE WASHINGTON NEWS MEANS TO MANAGEMENT

Breaking New Ground

So far, in the complete mobilization of all its resources, America has had the precedents of the last war to follow—and it has followed them with almost hypnotic exactitude.

Now, the guideposts have given out, for after nine months of war we are as far along the road as we were when the armistice came after 18 months of war last time. The pattern broke off in November, 1918, just as the nation was coming to grips with the problems that confront us now—for example, the problem of how to provide manpower both for a huge army and for a production machine running full blast.

From here on in, business must find its way through unexplored territory that is largely alien to the free and undisciplined American way of living. There are no precedents—at least not in our own history—to prepare the business man for the kind and degree of regimentation that lies ahead of him.

What to Make—When and How

The tight material controls with which Washington expects to meet the shortage problem (BW—Sep. 19'42, p17) will leave mighty little room for the discretion of the individual business man. He'll be told what to produce, when, at what rate, in what order, how much material he can bring into his plant, and at what rate he can withdraw materials from his own inventories.

And the orders he'll be taking won't come from a remote and anonymous Washington. They'll come from a man sitting at the next desk. Already used to getting along with an auditor and a production inspector from the War Department, the business man will have to get used to priority and scheduling inspectors checking his every operation. In big plants, these will be men from the government; in small plants, they're likely to be men from the big plants.

• **Sure—and Soon**—These things are logical necessities, are definitely planned by responsible officials, are matters of the next six months or so.

Complete Personnel Control

Manpower controls in industry are something really new. The Army and the war industries are cutting into the labor supply deeper than ever in the last war. The degree of regimentation which will result is not yet fully comprehended.

Businessmen are only now realizing that they must expect to have many of their best men taken away to go to the Army or to more important war jobs. They have yet to learn that labor controls will extend into every niche of their personnel policy.

Government men will prune the payrolls of every plant, determining the minimum labor force necessary and drafting or transferring the rest. This is already being done in some plants. Big employers will find labor utilization inspectors checking constantly on whether they are wasting or hoarding manpower. These inspectors are as likely to be men who come from the unions as men with management engineering backgrounds. Employers will hire what men the employment service lets them, may be restricted in their right to fire.

Regimentation—Down the Line

For individuals, too, it's regimentation. Regimentation of factory workers, white-collar men, and farmers—of consumers generally. Regimentation of jobs, of income, of living conditions, of time, thought, and action.

Men will be tied to their jobs at fixed wages and salaries. Their "goods" income will be fixed by rationing; surplus money will be drained off by the dollar's lower buying power, by taxes and war bonds, eventually by forced savings.

Net effect is equalization. Protection, promotion of living standards for the many who were never on the electric icebox standard of living, a deep cut in living standards for the middle incomes and the rich.

How About the Food Supply?

A Wickard can change his spots. First it was on farm price ceilings (page 15). Now the Secretary of Agriculture has turned bearish on food supplies, admits there may be a tough squeeze in 1943.

His previous optimism, inspired by large reserves and glowing crop reports, has wilted in a situation in which increasing domestic and United Nations demands for food collide with the critical shortage of farm manpower (which higher wages won't help), tightening farm machinery supply, and the realization that repetition of this year's favorable weather conditions can't be taken for granted.

To meet this situation, Wickard proposes: (1) conservation of all current food resources, (2) concentration on absolute essentials only, (3) continued

utilization of existing processing and distribution facilities, and (4) immediate attention to food stockpiling.

What Are Essential Crops?

In his Food for Freedom drive, Secretary Wickard has a real problem in distinguishing between essential and non-essential crops. Maybe popcorn, artichokes, and asparagus are nonessential, but how about hops and tobacco?

For the long term, the pattern is already clear. Ordinarily, wheat is essential, but, with a two years' supply on hand, the Department of Agriculture is turning farmers to high-protein crops such as soybeans. D. of A. also is pushing concentration on high-vitamin canning crops, leaving variety to be got out of wartime home gardens.

Plenty of wheat and corn are wanted as feed to produce more protein foods such as dairy, poultry, and meat products. D. of A. is soft-pedaling oats, barley, rye, buckwheat.

High-vitamin citrus crops get the nod over deciduous fruits. Regarded as essential crops in any circumstances are potatoes, rice, edible beans, cottonseed, peanuts, sugar beets, hay, or other roughage.

Hershey Looks at Farm Labor

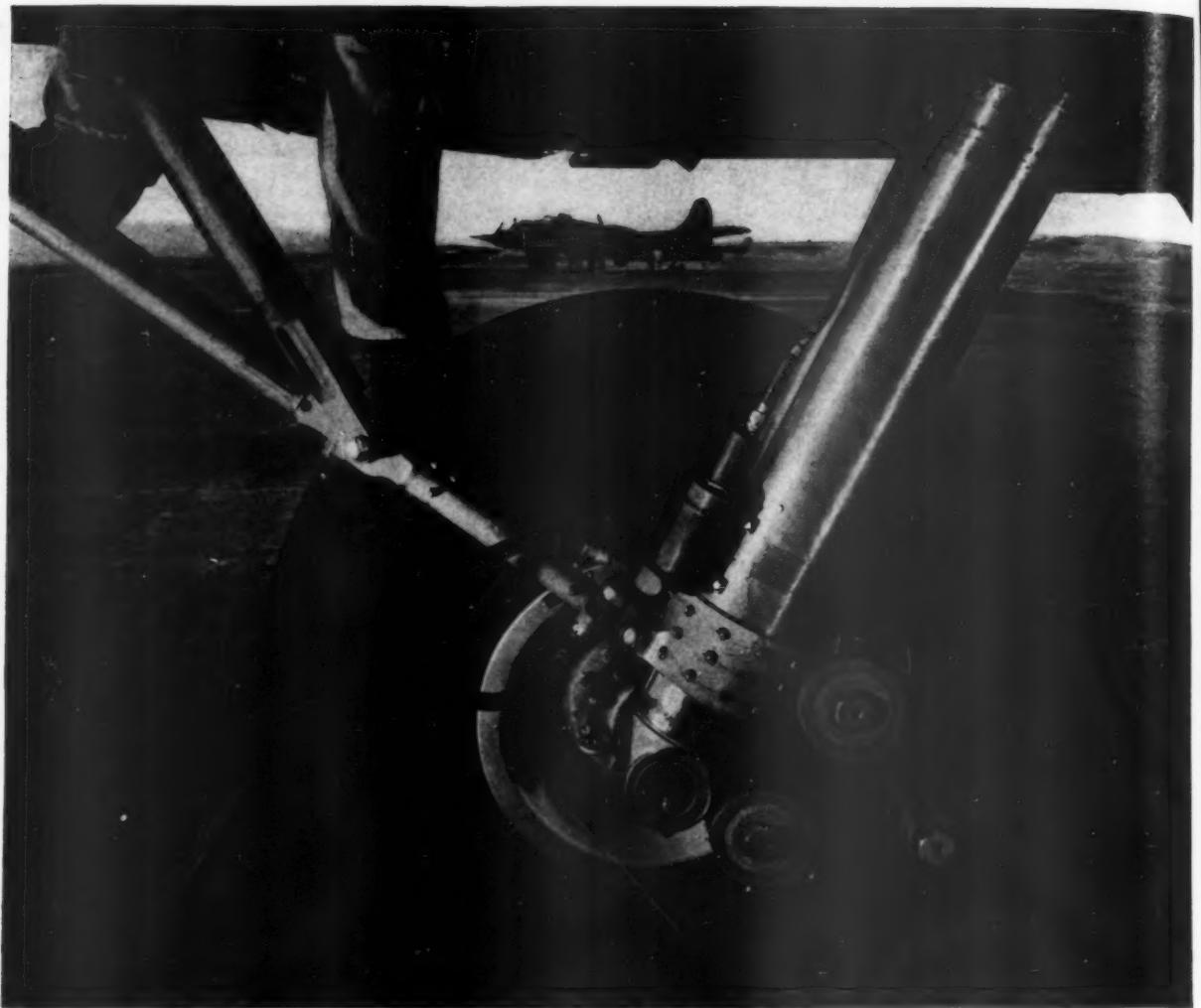
As one line of attack on the farm manpower shortage, Wickard and Gen. Hershey of Selective Service are seeking a working agreement to cut down production of nonessential crops. This may lead eventually to prohibiting certain crops. Another approach is to pay benefits only to those who plant what is requested.

Likely soon is refusal of draft deferments to men working on nonessential crops. In practice, this will have the effect of forcing farmers to concentrate on crops which Washington decrees to be essential.

That ticklish decision Hershey leaves in Wickard's hands.

Direct-Action Eberstadt

Ferdinand Eberstadt, chairman of the Army and Navy Munitions Board until his recent appointment as WPB's vice-chairman in charge of material flow, is making his presence felt. Pursuant to the new "scheduled production" scheme to which Don Nelson has given the nod (BW—Sep. 26'42, p14), Eberstadt last week called on the aluminum, copper, steel, shipbuilding, and ordnance branches to get going, and to sub-



All set for an eighty-ton punch on the nose

In a perfect three-point landing, the landing gear must resist a force equal to the full weight of the airplane. In a moderately bad landing, the impact may double the force to be resisted. On a very bad one the force may be more than tripled.

Try these figures on a 25-ton airplane—a Boeing Flying Fortress,* for example—and you will see why the landing gear has to be able to take it, and take it, and take it.

The design and development of landing gear is part of Boeing engineering history. More than 18 years ago Boeing

developed the first oil-hydraulic airplane shock absorber. This type of shock absorber is now in use on all large commercial and military airplanes, including the Flying Fortress.

That the landing gear of the Fortress can take it has been proved many times in severe drop tests made by the Army Air Forces at Wright Field . . . and in landings, equally severe, made at other fields—from Hawaii to the British Isles.

This extra-strong, extra-light landing gear is one of the many reasons why the crews of the Flying Fortresses are so loyal to the mighty bombers they fly. It

is one of the extra margins of safety that make the Fortress such a rugged soldier in action. A pilot knows that, when necessary, he can ask a little more from this plane, and get it.

The success of the Boeing landing gear on the Flying Fortress is the result of years of research by Boeing structural engineers working to make stronger, lighter structures out of metal.

The increase in the strength of metal structures . . . together with the decrease in weight . . . is only one of the many projects which form a constant part of the Boeing engineering schedule.

DESIGNERS OF THE FLYING FORTRESS • THE STRATOLINER • PAN AMERICAN CLIPPERS

*THE TERMS "FLYING FORTRESS" AND "STRATOLINER" ARE REGISTERED BOEING TRADE-MARKS

BOEING

WASHINGTON BULLETIN (Continued)

mit concrete plans within seven days.

Such celerity threw WPB, accustomed to move sluggishly "through channels," into quite a commotion. It startled A. I. Henderson, deputy director general of operations, who has immediate supervision of the branch personnel. "How come?" Henderson is reported to have asked Eberstadt. "I could have done it through your office, Alec, but I thought direct action would bring quicker results," Eberstadt is quoted as replying.

Redividing the Steel

The metal appetite of ever-hungry war industries soon will be slightly appeased when 5,000,000 tons of steel, constituting frozen, idle, or excessive stocks, are redistributed. The Steel Recovery Corp., WPB's material redistribution branch, and the distressed stock unit of the WPB's steel branch will be equally responsible for efforts to level steel supply to a practical working minimum.

Inventories of steel in partially or wholly fabricated form will be diverted to steel furnaces if they are not directly usable in munitions manufacture. Stocks which can't be sold privately will be bought by the government. If holders of steel aren't willing to sell, their material may be requisitioned by WPB. Pricing formulas will be set.

What a Good Boy Am I

Reported effort by Anaconda Copper to buy into Basic Magnesium, Inc., which operates a \$100,000,000 government-owned magnesium plant, is seen in Washington as the forerunner of major intercorporate struggles for options on government-financed war plants.

Biggest asset of many a young war industry is its right, after the war, to buy from Defense Plant Corp. the factory it now operates—either at a depreciated value figured according to a formula set forth in the contract or at some negotiated price. To financiers, willing to gamble on the possibility of a complaisant administration after the war, these look like juicy plums.

• **Plausible**—Still unconfirmed, reports of Anaconda's move are widely believed, since the light metals will be natural postwar competitors of copper (BW—Aug. 30 '41, p.49), and since Anaconda is known to be disturbed over depletion of its ore reserves.

Many Mansions

The National Housing Agency is reasonably confident that it will get the materials with which to build the \$600,-

000,000 of war housing authorized by Congress last week. It has received from WPB's Requirements Committee an allotment of stuff which is firm for the rest of this year except for a few remaining bugs, fairly solid thereafter.

This will provide 55,000 dormitory rooms, 55,000 "dormitory apartments" for couples, 70,000 temporary houses, and 25,000 permanent houses. In addition, WPB still expects to make good on its allotment of last March and grant priority ratings on 90,000 more privately-financed houses.

• **That's All**—Chances are that these will be the last houses built for the duration. Further needs will be met by compulsory billeting of war workers in existing homes.

New Plant Problem

Because the Army's \$20,000,000,000 war plant construction program is now consuming from 16% to 20% of ingot steel supply, the Army and WPB have at last decided on a survey to find out

how much material and machinery is needed to complete plants authorized.

The program is being cut back to relieve further shortages of steel needed by present war plants. At the same time a plant capacity survey is being considered at WPB. This survey would be industry-wide and would furnish WPB with another check upon which to predicate facilities curtailment.

Ickes Bumps Into Lewis

Secretary Ickes' attempt to increase the work week in the coal mines above the present 35 hours bogged down because of his failure to make advance preparations for this week's powwow. Neither operators nor the United Mine Workers were ready to obey Ickes' injunction to provide "at once" for increasing the work week, so the meeting went over to Oct. 21.

Prior to that time, the U.M.W. will hold its convention and give its officers authority to deal with the problem. John L. Lewis, the miners' presi-

The Forces' Strategy—On Renegotiation

Faced with the possibility that Congress will attempt to write an entirely new war contract renegotiation law or move to replace it with a flat limit on profits, Army, Navy, and Maritime Commission have evolved a strategy intended (1) to keep the present statute on the books, but (2) to alter it so that business-management squawks will die down. Direly in need of better public relations on paring profits (before taxes) by renegotiation, the three war agencies are using the Senate Finance subcommittee hearings as loudspeaker to broadcast their good intentions.

After Senator George last week plumped for a new law limiting war profits to 5% in normal cases and 1% where the government furnishes capital and facilities, Undersecretary of War Patterson let loose the Army-Navy-Maritime united front. Taxing away profits, said he, is the poorest of all controls because the contractor has no incentive to keep down costs, while the efficient producer gets no reward over the inefficient.

Instead, Patterson wants the whole batch of placating tactics now used by war procurement agencies to get the benefit of formal congressional christening. This would include the legalization, hard-and-fast, of renegotiating on the basis of a company's total profit position rather than in-

dividual contracts, elimination of double indemnity by pay-back of taxes, guarantee against reopening an already renegotiated contract, exemption of contractors and subcontractors with less than \$250,000 worth of war contracts in a fiscal year, and a redefinition of what constitutes a subcontract.

Meantime, the armed forces have signed a peace treaty with OPA. The latter now intends to pursue its hands-off policy—already used on a broad scale (BW—Sep. 5 '42, p.22)—to the ultimate; OPA will not put ceilings on any war goods except raw materials and standard commercial fabricated or semifabricated articles.

That the procurement agencies have made a better and more reasonable defense for renegotiation than ever before seems certain. On the other hand, there still remains some doubt as to the possibility of keeping renegotiation and killing the proposal for a statutory limit on net profit after taxes. In fact, the tax proposal (odious though a tax of any kind is to businessmen) may enlist the sympathy of those who currently are making less than 5% on their war contracts.

Committee hearings are continuing, with the armed forces hoping that their big guns—notably those fired by Patterson—were big enough.

2 New Willson UNIVERSAL GAS MASKS

with U.S. Bureau of Mines Approval



The universal range of these new Willson Gas Masks makes them ideal for all 'round use. WUG-N1 is approved by the U. S. Bureau of Mines for all toxic gases, including carbon monoxide. WUG-N2 is the first gas mask to receive approval for both smoke and gas protection.

There are over 300 different Willson Gas Masks, Respirators and Goggles for every conceivable industrial use.

GOGGLES • RESPIRATORS • GAS MASKS • HELMETS

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READING, PA. USA

WASHINGTON BULLETIN (Continued)

dent, indicated continued resistance to the longer work week idea. He said no evidence had been produced to establish that the coal industry couldn't meet its production quotas under the present work schedule.

Tank-Car Priorities

WPB has taken the initial step in putting priorities on rail freight (page 58). Object is to allocate the nation's 143,000 tank cars so that shipments of essential chemicals and vegetable fats and oils won't get gummed up with the increased rail movements of petroleum. Hereafter tank cars may only be used for transporting rated goods (unless a special Office of Defense Transportation permit to the contrary is obtained). Car-leasing agents will assign cars to their customers in accordance with a schedule of five categories which automatically rates them—A for war goods, B for chemicals, C, D, and E for civilian petroleum products.

Shippers owning their own equipment will be allowed to use it as before, unless somebody with a higher priority rating can't find cars. In that event, ODT can give the private cars to the higher-rating shipper.

• **Licensing on Lakes**—Simultaneously, ODT is extending its priority system on Great Lakes shipments, will soon issue an order placing all Great Lakes vessels under virtual ODT licenses.

Subsidy Under an Alias

Food industry leaders have consistently opposed government proposals to subsidize food processing and distribution, but the Department of Agriculture and OPA have put into effect several plans which amount to just that. Simply because these programs don't bear the specific subsidy tag, they haven't aroused violent objection from the industry. For example:

Commodity Credit Corp. is paying crushers of domestic vegetable fats and oils $\frac{1}{4}$ ¢ for every pound they handle. This was done to facilitate movement of this year's record domestic fat-and-oil crops. OPA picked up the ball and, by a series of complicated regulations, passed this $\frac{1}{4}$ ¢ subsidy on through the oil refiner and the processor of the finished product. As a result, the wholesaler and retailer of processed fat-and-oil products—shortenings and salad oils—get the benefit of the $\frac{1}{4}$ ¢ which amounts to subsidy under another name.

• **And for Liberty Cabbage**—The Agricultural Marketing Administration has agreed to pay sauerkraut packers \$1 per 45 gal. lot to ease them out of tin cans into barrels.

More on Utility Rates

The Federal Power Commission hopped aboard OPA's bandwagon with its Panhandle Eastern Pipe Line Co. decision excluding wartime tax increments from operating expenses for the purpose of determining rates. Not only did FPC apply the rate calculating formula which OPA has been seeking to have regulatory agencies adopt, but the agency also clearly outlined a yardstick for all companies within its jurisdiction—taxes at the 1940 rates are operating expenses, all increases must be absorbed by investors.

• **Greener Fields**—Meanwhile, OPA has begun exploring new ground in its encirclement campaign to bring utility rates within its jurisdiction despite their exemption from price control—an exemption already virtually dead from a practical standpoint. In the Washington (D. C.) Gas Light Co. case, OPA filed a brief arguing that wartime makes obsolete normal calculations of reasonable return, property value, etc.

High-Altitude Problems

All three laboratories of the National Advisory Committee for Aeronautics—Langley Field, Va., Moffett Field, Calif., and Cleveland Aircraft Engine Research—have been ordered off their regular long-range programs and now are on urgent day-to-day aircraft production problems.

NACA has been having trouble getting equipment and materials, and its requirements are about to be given high war production preference ratings. Officials say nothing, but almost certainly one of their jobs is to make changes in superchargers, which must go on up to higher fighting levels; another is better oxygen equipment for these levels; a third is emergency de-icer equipment for combat planes this winter.

Capital Gains (and Losses)

Tire chain production will be severely restricted by a forthcoming limitation order. Passenger cars will be hit harder than trucks.

Two chartered buses are still operating at lunch time between the Army and Navy club and the Navy and Munications (Army) buildings.

Ladies, you have heard of eating for two. Have you heard of government for two? The joint efforts of the Women's Bureau and Children's Bureau were required to frame a statement of policy with reference to industrial employment of pregnant women.

—Business Week's
Washington Bureau

FIGURES OF THE WEEK

	\$ Latest Week	Preceding Week	Month Ago	6 Months Ago	Year Ago
THE INDEX (see chart below)	*186.5	187.4	186.1	176.5	160.6
PRODUCTION					
Steel Ingot Operations (% of capacity)	97.3	96.2	97.6	98.8	96.9
Production of Automobiles and Trucks	20,860	20,960	21,100	28,915	77,035
Engineering Const. Awards (Eng. News-Rec. 4-week daily av. in thousands)	\$28,450	\$30,987	\$37,949	\$28,801	\$22,331
Electric Power Output (million kilowatt-hours)	3,720	3,757	3,640	3,346	3,273
Crude Oil (daily average, 1,000 bbls.)	3,909	3,936	3,964	3,820	4,060
Bituminous Coal (daily average, 1,000 tons)	1,883	1,2093	1,821	1,825	1,735
TRADE					
Miscellaneous and L.C.L. Carloadings (daily average, 1,000 cars)	85	83	82	87	93
All Other Carloadings (daily average, 1,000 cars)	65	65	63	46	58
Money in Circulation (Wednesday series, millions)	\$13,519	\$13,440	\$13,057	\$11,462	\$10,070
Department Store Sales (change from same week of preceding year)	+5%	-3%	-3%	+26%	+12%
Business Failures (Dun & Bradstreet, number)	149	117	141	268	181
PRICES (Average for the week)					
Spot Commodity Index (Moody's, Dec. 31, 1931 = 100)	235.0	233.4	231.0	231.8	214.0
Industrial Raw Materials (U. S. Bureau of Labor Statistics, Aug., 1939 = 100)	155.0	155.0	153.7	154.8	145.2
Domestic Farm Products (U. S. Bureau of Labor Statistics, Aug., 1939 = 100)	186.3	183.6	181.2	183.8	161.8
:Finished Steel Composite (Steel, ton)	\$56.73	\$56.73	\$56.73	\$56.73	\$56.73
:Scrap Steel Composite (Iron Age, ton)	\$19.17	\$19.17	\$19.17	\$19.17	\$19.17
:Copper (electrolytic, Connecticut Valley, lb.)	12,000¢	12,000¢	12,000¢	12,000¢	12,000¢
:Wheat (No. 2, hard winter, Kansas City, bu.)	\$1.23	\$1.20	\$1.12	\$1.19	\$1.13
:Sugar (raw, delivered New York, lb.)	3.74¢	3.74¢	3.74¢	3.74¢	3.50¢
Cotton (middling, ten designated markets, lb.)	18.74¢	18.72¢	18.72¢	20.20¢	16.59¢
:Wool Tops (New York, lb.)	\$1.205	\$1.203	\$1.213	\$1.333	\$1.303
:Rubber (ribbed smoked sheets, New York, lb.)	22.50¢	22.50¢	22.50¢	22.50¢	22.50¢
FINANCE					
90 Stocks, Price Index (Standard & Poor's Corp.)	70.5	68.8	68.4	64.0	80.6
Medium Grade Corporate Bond Yield (30 Baa issues, Moody's)	4.26%	4.27%	4.27%	4.27%	4.32%
High Grade Corporate Bond Yield (30 AAA issues, Moody's)	2.80%	2.80%	2.81%	2.84%	2.75%
U. S. Bond Yield (average of all taxable issues due or callable after twelve years)	2.34%	2.34%	2.34%	2.33%	2.13%
U. S. Treasury 3-to-5 year Note Yield (taxable)	1.28%	1.27%	1.26%	0.93%	0.65%
Call Loans Renewal Rate, N. Y. Stock Exchange (daily average)	1.00%	1.00%	1.00%	1.00%	1.00%
Prime Commercial Paper, 4-to-6-months, N. Y. City (prevailing rate)	1-1%	1-1%	1-1%	1%	1%
BANKING (Millions of dollars)					
Demand Deposits Adjusted, reporting member banks	27,807	28,085	27,168	24,574	24,390
Total Loans and Investments, reporting member banks	35,349	34,358	34,504	30,781	29,120
Commercial and Agricultural Loans, reporting member banks	6,281	6,317	6,343	7,008	6,389
Securities Loans, reporting member banks	884	816	892	815	918
U. S. Gov't and Gov't Guaranteed Obligations Held, reporting member banks	21,488	20,588	20,564	15,644	14,397
Other Securities Held, reporting member banks	3,535	3,457	3,462	3,735	3,769
Excess Reserves, all member banks (Wednesday series)	2,030	3,040	2,340	2,847	5,202
Total Federal Reserve Credit Outstanding (Wednesday series)	3,581	3,857	3,525	2,326	2,279

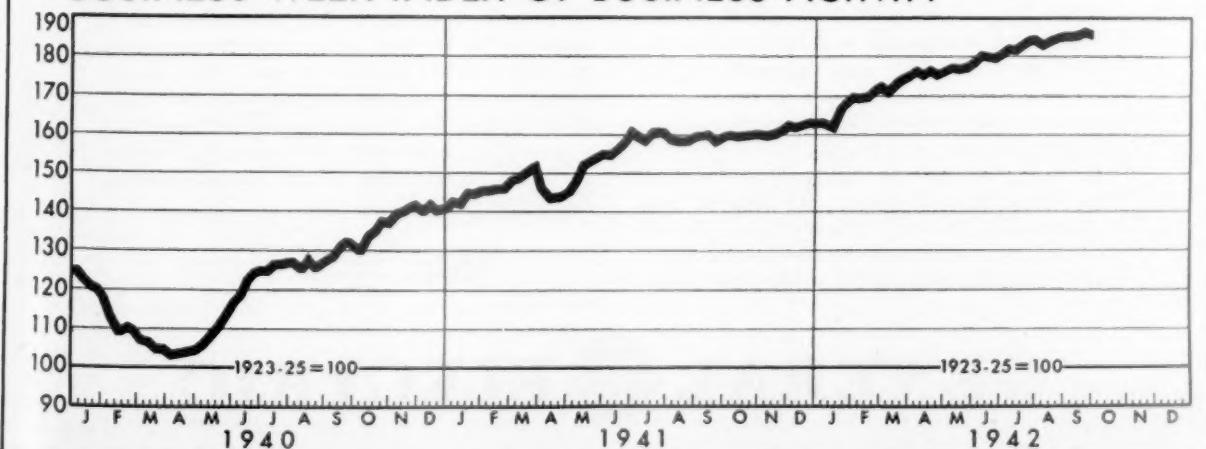
*Preliminary, week ended September 26th.

† Revised.

‡ Ceiling fixed by government.

§ Date for "Latest Week" on each series on request.

BUSINESS WEEK INDEX OF BUSINESS ACTIVITY





The Midget Matched Strides with the Giant

TO FILL an important war order, a textile plant had to overcome a puzzling operating problem. At one point the cloth had to pass through two finishing machines in a continuous operation, which meant that both machines had to start and run in perfect unison. The difficulty arose from the fact that each machine had separate, variable-speed electric motors—and one motor was three times the size of the other. The only apparent way to make the two machines move as one was to buy an oversize motor for the small machine and wait 20 weeks for delivery.

In this dilemma the company called in a G-E Application Engineer. He showed how a standard "booster" transformer for the smaller motor would achieve the desired result, making both machines run in perfect synchrony.

By accepting his recommendations, this plant avoided a production bottleneck, saved more than \$300 in equipment costs, and gained 15 weeks' production time.

Averting production tie-ups, as in this case, is only part of the G-E Application Engineer's wartime job. His work today includes speeding old production methods, converting misfit machines to the job in hand, and discovering short cuts out of production ruts. With knowledge founded on extensive practical experience, G-E Application Engineers are well qualified to assist you with such problems. Get in touch with the nearest G-E office. *General Electric, Schenectady, N. Y.*



The Navy "E", for Excellence, has been awarded to 92,780 General Electric employees in six plants manufacturing naval equipment.

GENERAL  **ELECTRIC**

EWI-34-8400

LET'S MAKE EVERY MAN-HOUR OF WAR EFFORT PRODUCE MAXIMUM RESULTS

THE OUTLOOK

Tightening-Up Time Comes

Nelson, Hershey, and Henderson set the stage for more exacting controls over materials, manpower, and purchasing power. Retailers are warned they face hard squeeze.

The nation's business men this week listened to three significant statements by officials—none of them particularly pleasant. Donald Nelson admitted that August war production ran 14% behind schedule. Gen. Hershey asserted that the time and need had come to set up a national manpower budget. Leon Henderson warned that fulfillment of the war program will drive living standards down to the 1932-1933 level.

From all this, the implications are clear. Not only must our civilian economy be further readjusted to the war, but so, too, must our arms program.

Still Seeking a Balance

The fact is that our economic potential is limited. We cannot define the limit exactly, and so we cannot know whether schedules are actually attainable. But, on the theory that if we cannot have everything we must maintain the proper proportions, WPB, in conjunction with the military, has for long months been striving for a much-publicized "balance."

One result has been the curtailment of plant building, and Nelson this week predicted that machine tool output, now running at \$1,400,000 annually, will soon reach a peak of \$1,600,000,000.

What's more, specific programs have already had to be altered. In warships for instance, there have been shifts from battlewagons to aircraft carriers; from cargo to escort vessels; from Liberty transports to tankers. And, even production of steel plate—chief ship material—has had to be curtailed in favor of sheets and other types.

Which Will Come First?

Some of this juggling is temporary, to meet immediate situations. But, the over-all limit remains. To boost one phase of the war program means to cut another. And, whether to concentrate on air forces or warships, on lend-lease or an American land Army, depends, in turn, on whether we drive against Germany or Japan, or whether we can supply Russia and China or not—in short, on the course of the war and the strategic decisions flowing therefrom.

Entering that pattern now, interdependent with materials, is manpower (BW—Sep. 19 '42, p100). And, just as we must budget materials through

proper scheduling, allocations, and inventory controls (Outlook Chart), so must we budget our human resources.

A labor pinch already has cut lumber, copper, and most types of agricultural output. Indeed, Mr. McNutt this week suggested lifting farm wages, even if this means higher prices and living costs (BW—Sep. 26 '42, p13). Now, coal is on the docket, and Secretary Ickes this week asked a joint labor-management conference to lift the industry work-week from 35 to 48 hours. Pending the United Mine Workers of America convention two weeks hence, at least, John L. Lewis has demurred.

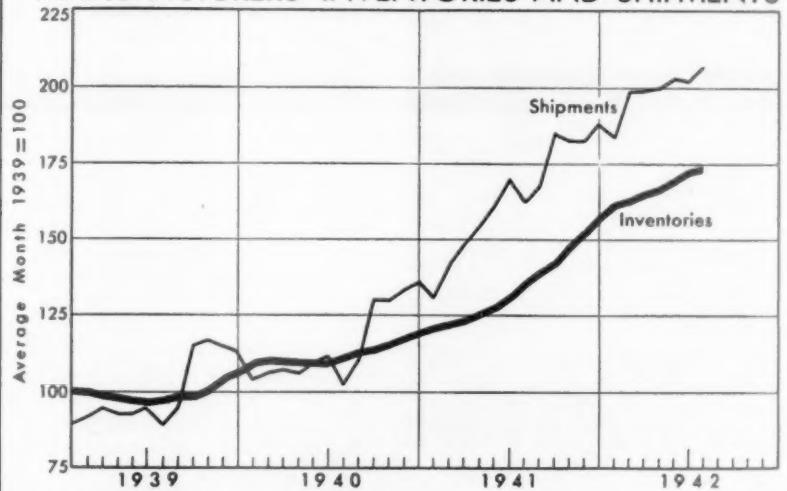
Industry experts figure that, on current hours, capacity to produce bituminous coal will hardly equal this year's

565,000,000 ton demand—four-fifths of which is needed to power our factories, railroads, and other industry. Next year, demand will rise 10%. As against that, 50,000 workers have already been siphoned off to the Army and other war work, and the drain continues. More, productivity of replacements has been declining. Hence efforts to lengthen hours, spur per-man output, and defer skilled miners.

Civilian Lines "In for It."

The need for mobilizing and rationing all our potential labor points to centralized control and a National Service Act. But here again, limits will remain. Civilian activities will have to be cut. How much? In Hershey's words, "How can you expect an army to know how many men it will need when on the Volga events are transpiring which may mean the difference of a half million or two million men?" If, as in Germany, the war requires the induction of additional soldiers, even direct war output may have to give way. When the economy is down to an all-out basis, the

IN THE OUTLOOK: MANUFACTURERS' INVENTORIES AND SHIPMENTS



Data: Department of Commerce

© BUSINESS WEEK

"Practicable minimum working inventory" is a key, if mouth-filling, phrase in the War Production Board's priorities language. Deliveries of materials are forbidden to producers who already hold such stocks. But it is patent from the chart that excess inventory accumulation has aggravated shortages. For, customarily, higher rates of operation permit lower, more efficient stocks-to-sales ratios—the pat-

tern followed up to about the middle of 1941. By then, the shipments index had outstripped that for inventories by nearly 40 points. But since, instead of widening further, the spread between the indexes has narrowed to only 30 points—a clear reflection of hoarding. WPB hopes that allocation measures will uncover excess stocks, freezing materials for additional finished output.

war itself determines the when as well as the what of "most essential."

To meet war problems, Henderson convened retailers this week in Washington in an effort to streamline costs. Profit margins continue to be squeezed between fixed price ceilings and rising wage payments. And volume must contract. Non-essential delivery, packaging, and other services will have to be pared if trade enterprises are to survive.

Aid for Retail Outlets

As it is, Commerce's undersecretary, Wayne Taylor, warns, 300,000 small retail stores will be forced to close by the end of 1943. Such business fatalities will far exceed those in manufacturing. Suggestions to meet these casualties in order to preserve the small business structure for a balanced post-war economy this week crystallized in Donald Nelson's proposal for a War Liabilities Adjustment Board which would administer financial adjustments and provide small business with opportunities after the war.

As the pinch on service and retailing lines intensifies for lack of manpower and goods, more relief will be demanded. A battle over the methods and degree of help seems inevitable.



BUSY SUNDAY

With cars of eastbound coal and oil accumulating in its Buffalo yards on a Sunday recently, New York Central started to dispatch solid trains eastward at such a pace that at the end of a 24-hr. period an all-time freight traffic record of 3,471 loaded cars had been hung up. To accomplish this movement and to move the additional empty cars required the dispatch of a train nearly four-fifths of a mile long every 30 min. on an average throughout the entire 24-hr. period.

A Rationed Nation

Here's how the controls over fuel oil and gasoline are shaping up. Unified system of mileage control is evolved.

Fuel oil rationing in 30 states about Oct. 15; gasoline rationing nation-wide about Nov. 22; a universal auto speed limit of 35 miles per hour Oct. 1. These were the goals set on the fast-moving rationing front during the past week.

• **A Single System**—Gasoline and tire rationing systems are being merged into a single system of mileage control under Rubber Director William M. Jeffers, who split the administration between OPA and the Office of Defense Transportation after a week of haggling over whether the Baruch report meant ODT should do it all.

OPA will handle rationing as such, with ODT checking on general performance as to tire conservation. ODT set the 35-mile speed limit, which the OPA rationing system will help to enforce. ODT keeps control of commercial vehicles and its certificates of war necessity will be used by OPA in tire and gasoline rationing. The two systems interlock rather nicely, with little chance for jurisdictional conflicts.

• **Tire Inspection**—Gasoline rationing will follow the present Eastern regional plan, to which will be added a requirement for inspection of tires on the wheels every 60 days. The basic allowance ("A" book) will provide 2,880 miles of driving per year at an arbitrary average of 15 miles per gallon, or 16 gallons per month. "B" books providing up to 470 miles per month additional will be issued for occupational driving to those who form car-sharing pools, or show they can't do so and have no other means of getting to work.

The preferred mileage "C" books will be limited to 14 specified occupations essential to war production and public health and safety. Restrictions on outstanding "B" and "C" books in the East will be tightened.

• **5,000 Miles a Year**—This system is expected to hold average passenger car mileage to 5,000 annually, the goal of the Baruch report. Reports on the first two months of rationing in the East show this has almost been achieved for the 7,000,000 cars affected, and improvement is anticipated from tightened enforcement. Some 20,000,000 cars in the rest of the country will be affected. ODT's recently announced truck control order will greatly reduce truck, bus, and taxi mileage, and the 35-mile speed limit will prolong tire life greatly.

Dates for starting gasoline and fuel oil rationing are indefinite because of the tremendous job of printing coupon



FRONT-SEAT DRIVERS

Way out west where men are men and consequently very much in demand for war work, six women are now relieving the manpower shortage by driving Key System buses which transport shipyard workers across the Bay bridge connecting Oakland and San Francisco.

books and application and record forms and of preparing local ration boards for the registration work.

• **Complicated Formula**—Fuel oil rations will be determined by a complicated formula, chief factors in which will be square feet of heating space in the dwelling, and the temperature zone in which it is located (BW-Sep. 26'42, p17). The average curtailment will be 33½% below normal demand, but only about 26% below last winter (an unusually mild one). This means heat-tight homes may be cut only 15%, "sieves" as much as 40%. Coupons equivalent to stock on hand Oct. 1 will be torn from ration books when issued.

Heating oil for commercial and industrial buildings will be cut a flat 33½% but won't require coupons. A different formula is used for hot water heating, also aimed at a one-third curtailment. This 33½% cut is greater than the estimates of supply and transportation call for, but this fact should not retard conversion to coal wherever possible.

• **Fuel Oil Coupons**—The fuel oil rationing plan will divide the year into five periods to enable consumers to budget their allowance throughout the heating season. OPA will issue coupons, numbered 1 to 5, valid only for specific periods. Arrangements are being made, however, for advanced or delayed use of coupons to permit consumers to adjust their ration to unusual cold spells.

F.D.R. Wins Parity Price Fight

Agricultural products will be frozen at the level which President demanded, although farm bloc wins concession for covering increases in production costs since Jan. 1, 1941.

No price control law can really prevent inflation. No price control law can prevent farm prices from inching upward. But insofar as legislation can have a restraining effect, the President has won his battle with the farm bloc. At the Oct. 1 deadline, when the fight was already over, it was apparent that the dénouement would come in one of two ways—and it didn't particularly matter which:

(1) Senate and House would agree on a final bill substantially the same as the one which passed the Senate this week; or

(2) Congressional spokesmen for the Administration would hold the conference committee of the two houses in a deadlock, and the President would move in, using the Second War Powers Act to control farm prices.

The Administration strategy would avoid the appearance of flouting Congress, for even in the second contingency Roosevelt could point out that Congress supported his position but was merely tangled in parliamentary technicalities.

• **Ceilings and Floors**—As predicted a week ago (BW—Sep. 26 '42, p5), the measure permits imposition of price ceilings at parity on below-parity crops and establishes a floor for such crops at 90% of parity by the use of government loans. This has already raised the price of wheat and will prevent any occasional drops in the price of other sub-parity crops, most of which are above 90% now.

The permissible ceiling on above-parity crops is the highest price which prevailed between Jan. 1, 1942 and Sept. 15, 1942, provided it adequately "reflects" increases in farm production costs, including farm labor, since Jan. 1, 1941. For the present this concession to the farm bloc will affect only a few crops—notably peanuts and milk. Since Jan. 1, 1941 the prices of most farm commodities have been rising faster than the cost of production.

• **Preserving Profit Levels**—The effect of the concession will, however, make itself felt in coming months. Farm profit levels are now at a peak, from which they were due to fall off, because farm costs are just now beginning to rise faster than prices. This is the underlying reason why the farm bloc put up such a relentless fight. What it has gained in forcing the Administration to compromise is to freeze the present high profit level on above-parity crops.

• **Complicated Computation**—Administration of the allowance for increased costs of production is a tricky job. Not only has the Department of Agriculture never set up a statistical apparatus for measuring costs of production, but such costs vary from crop to crop, from county to county, from farm to farm. The task is simplified somewhat because it is only necessary to measure changes in cost of production rather than the costs themselves, but the prospect is that lengthy hearings will have to be held on many crops in order to arrive at regional averages.

This is a direct-to-consumer bill. Both House and Senate versions included a provision that resulting increases in prices to processors shall be passed down on the line.

• **Cutting Down Farm Demands**—What the farm bloc is getting is a long way from what it nearly got. The bill passed by the House a week earlier under the lash of the farm organizations was a price-boosting measure. It would have forbidden any ceiling lower than 112% of parity and would have put a floor of 100% under farm crops. It would have done this by giving the

President, in words, what he asked for—a ceiling at 100%—but raising the value of parity by including a factor for the increase since 1909-14 in costs of all farm labor—that of the farmer himself, his family, the farm, and the hired hands. This was the notorious Brown Amendment in the House.

For a couple of days after the House surrendered to the will of the Farm Bureau Federation, the Grange, National Council of Farmers Cooperatives, and the Federation of Milk Cooperatives, the hatchetmen of these lobbies hoped to shove the same thing through the Senate. The Thomas Amendment, redefining parity in the same terms as the Brown Amendment in the House, actually carried the Senate.

• **Bringing Pressure to Bear**—By that time, however, the august Senators had realized that they'd have to vote one way for the President and another way for the folks down on the farm. The Administration's tactics had been to stall until the public had a chance to understand what the farm bloc was getting away with and swing in behind Roosevelt. When the Thomas Amendment passed, 48 to 43, it was already clear that the Administration's compromise proposal, the Barkley Amendment, would supersede it by a safe margin. As it turned out, it was by an overwhelming margin of 86 to 4.

• **No Row Over Wages**—Indicative of Administration strength was the President's success in subordinating the wage control issue to the farm price control



WPEB

Charged with the all-important task of scheduling war production to conform to available materials, the newly created War Production Executive Board (BW—Sep. 26 '42, p14) met this week for the first time to plan an offensive on production bottlenecks. Its

members—all top-ranking officials of WPB, Army, Navy, and Maritime Commission—are (left to right) Rear Admiral Howard L. Vickery, Lieut. Gen. Brehon B. Somervell, Chairman Charles E. Wilson (recently resigned as president of General Electric), Vice-Admiral Samuel M. Robinson, and Maj. Gen. Oliver P. Echols.

issue. Only perfunctory attention was given by Congress to wage stabilization. In an attempt to clinch labor support in the House for the Brown 112% amendment, a clause was included which forbade fixing any wage ceiling lower than the War Labor Board's 15%

formula. The Senate gave the President explicit power to regulate wages and salaries but set no standards except that "so far as practicable stabilization shall be on the basis of the levels which existed on Sept. 15." This legislation would permit the President to put into

effect his pet \$25,000 salary limit. He need only declare that such salaries constitute a "gross inequity."

Fertilizer Hedge

Abundant quantities available for 1943 farm crops but WPB prohibits nitrogen for lawns, golf courses.

Front lawns may look a little ragged next year but there will be plenty of fertilizer for essential farm production. There will be as much or more fertilizer of all types than was used on 1942 crops, and it will be more equitably distributed.

• **Exports to Britain**—That is the belief of the Department of Agriculture, despite the fact that the War Department has taken over practically all synthetic ammonia, and despite the exports of triple superphosphate to the United Kingdom, to enable Britain to expand food production at home. Nitrate of soda was placed under WPB allocation early in January; other nitrogen solutions and carriers have followed.

Chemical nitrogen fertilizers for side dressing will be in larger supply for farmers in 1943 than this year, even though the total of nitrogen, chemical and organic, will be about the same or only slightly under 1942, but nonessential uses will be curtailed.

• **Potash Increase Seen**—Potash fertilizer supplies in 1943 are expected to total more than 500,000 tons, compared with 455,000 tons in 1942.

The primary diversion of phosphates will be the exports to the United Kingdom to boost production in Britain and conserve vital shipping space that otherwise would be needed for carrying food to the British. Anticipated 1943 use of phosphate fertilizers will amount in terms of phosphoric acid to about 1 million tons, substantially more than 1942.

• **WPB Steps In**—This comfortable situation will come about by efficient use of supplies. WPB on Sept. 14 issued an order, on the recommendation of the Department of Agriculture, prohibiting use of nitrogen fertilizers on lawns, trees, shrubs, flowers, golf courses, or cemeteries. Nurserymen may use nitrogen in their own establishments but not for outside private grounds they work on. The order also controls distribution of fertilizers so that heavy users of certain types shall continue to receive them for farm production.

WPB, the Department, and the industry are working out a system to allocate fertilizers on the farm. It is expected each farmer will be asked to report how much fertilizer he used in 1942 and how much he needs for 1943.

That Parity Will-o'-the-Wisp

Parity prices for the farmer are more in the news today than at any time in their turbulent history. Burning issue in the current anti-inflation arguments, parity necessarily is worthy of closer scrutiny than ever before. To help clear up some of its mysteries, the following glossary is offered:

Parity—

What It Means

Parity is defined as the fair exchange value of any major crop in terms of the things a farmer buys. To find the "ideal" base period, agricultural economists went back to the five years from August, 1909, to July, 1914. But, if adequate 1909-14 data isn't available for a crop, some other ideal base is chosen. Thus, for potatoes, the base is August, 1919-July, 1929. Similarly for barley and flue-cured tobacco, it's August, 1934-July, 1939.

Consider, by way of example, how parity is computed for cotton. The 1909-1914 average price received by the farmer was 12.4¢ a lb. By definition, the price the farmer got for his crop in those years was on a par with the things he bought—thus 12.4¢ for cotton represented 100% of parity. But today the prices he pays are up by 52 points, or at 152% of parity. Multiplying 12.4¢ by 152% gives 18.85¢ a lb. as today's parity price; the cotton grower has to realize 18.85¢ on the crop in order to achieve the cherished ideal.

Prices Paid by Farmers— Their Significance

To know the fair exchange, or parity, for a crop, Bureau of Agriculture Economics experts have worked out an index number covering the pricing of 174 articles used by the farmer and his family for daily living and items entering into his actual costs of production. Some 10,000 retail stores are questioned every quarter to get on-the-ground data to keep these prices up to date.

Because a farmer is likely to buy a good deal more fertilizer than silk shirts, the 174 articles are duly weighted in accordance with the number of units of any article purchased per farm during 1924-29 (the most recent period of economic stability). Since 1935, land interest and taxes have been included, along with goods, in the farmer's costs.

Farm Commodities— New or Changed

Sometimes parity can't be computed for a farm commodity at all. The commodity may now be used for different purposes or may be almost brand new. Hence the conditions of three decades ago are an anachronism.

Therefore, soybeans, peanuts for oil, and dry field peas are assigned "comparable prices"—synthetic parity, in short. This is computed as follows: The prices of the five basic farm crops stood at 79% of parity in 1934-39; therefore you assume that the average price obtained for soybeans, peanuts, or field peas in 1934-39 was 79% of parity, too. From this starting point, it's simple to calculate a 100% "comparable price."

What Parity Calculations Do Not Include

In computing prices received by farmers, the BAE does not include government benefit money, soil conservation payments, or any other form of subsidy. Yet in 1941, 4% of the farmer's gross income was derived from such public monies. The BAE at the moment has not released calculations showing what effect these outlays would have on prices received by farmers. It's certain, however, that additions of this type would drive wheat and cotton prices just about to parity—although on paper both are some distance below.

On the other hand, wages for hired labor are excluded from the index of prices paid by farmers. If wages had been included in 1942, the index might have been driven from 152 to 157. And had all labor—including family labor—been included as a production cost, the index might have jumped to around 167.

Why aren't subsidies or labor included in parity calculations?

The answer is political, not mathematical. Back in the early days of parity history, farmers didn't want wages included—and naturally not subsidies. Wages were so cheap in 1935 that they would have pulled the index of prices paid down from 130 to 126. Currently, the situation has reversed itself.

Shortcomings of Parity Calculations

Agricultural experts know that parity is a simple, not an accurate, yardstick and that to be truly effective it must be changed from time to time. Yet most such changes are traditionally based on bargaining, and political swapping hardly hews to the line of pure statistical concepts. The choice of a base period, for instance, makes a tremendous difference, so do inclusions and exclusions.

Further, parity levels are calculated in broad, general terms. They appear monthly (seasonally for a few commodities) but—excepting dairy products and milk—do not allow for seasonal variation. Nor (again with a few exceptions) do they make much allowance for different grades or market differentials among commodities.

Meantime, the "prices paid" index is calculated for the nation as a whole, although a Tennessee farmer is not the same species as a Maine farmer. He doesn't pay the same prices, nor buy the same type of goods. Nor does this index—based as it is on 1924-29—properly take into account technological developments.

The Five Basic Commodities

This term appears several times in the proposed new anti-inflation legislation. There are five basic U.S. crops: wheat, corn, tobacco, rice, and cotton. They represent the big staple commodities from which millions of farmers derive their living, were first defined as "basic" in the Agricultural Adjustment Act of 1933.

Manpower Control Comes to Life

Baltimore is the laboratory where labor allocation receives its trial run for eventual application to all industry and to virtually every civilian whether male or female.

Every employer in war or civilian industry, every man who isn't in uniform, nearly every woman will feel the impact, before many months, of federal manpower control. With war industry and the services cutting into labor supply, the government is going to put people, willy-nilly, where they are needed.

• **Guinea Pig**—Baltimore has become the laboratory of manpower control. The War Manpower Commission has set up its first area office there and is deliberately experimenting, trying out the techniques that it will eventually introduce in other war production centers.

About two months ago WMC decided to establish an experimental area office, sent a key assistant, Alexander Liveright, to Baltimore. It was a pretty good choice for a laboratory. Baltimore isn't a labor hot spot; neither is it free of problems. A city of 860,000 peacetime population, it has about 25 major plants doing war work, employing about a quarter of a million workers.

• **Diversified Industries**—Twenty percent of the population is negro, but there is little negro employment in war plants. Baltimore's war industries are diversified, cover aircraft, shipbuilding, radio manufacture, machine tools, steelmaking, ordnance manufacture, substantial subcontracting.

Baltimore labor, in peacetime, was

largely unorganized, but most of the war plants now have union contracts. The city is thus in the throes of shifting from an open-shop to a union town. Union relationships are complex. Both A.F.L. and C.I.O. are active. Surface relations between the two groups are smooth, but some bitterness has arisen over efforts to organize Martin Aircraft. C.I.O. itself is split between the unions included in the Baltimore Industrial Union Council and a leftish group outside, led by the shipyard workers.

• **Heavy Migration**—The war has caused a heavy influx of outside workers into Baltimore—largely from West Virginia and North Carolina—averaging about 3,500 workers a month.

In one major respect, the Baltimore pattern is not typical of what's coming; it's a voluntary rather than a compulsory program. Pending legislation, there are two enforcement weapons. Against recalcitrant employers, Liveright can use the contract-letting power of the Army. Thus far, the power has not been used, but a captain from the Army's manpower division is assigned to work with Liveright—and lets himself be seen frequently by Baltimore business men.

• **Draft Club**—The Selective Service System is a potential club over the individual worker. It's also a potential club over employers, since they must deal with Selective Service in getting



Letting them in on the ground floor—literally and figuratively—that's what Baltimore's new Recruiting Center aims to do for the city's women who are anxious to contribute to the nation's war effort.

occupational deferments for their men. Thus far, this club hasn't been wielded either.

Liveright has no staff of his own. He works through two different groups—the Baltimore offices of the various federal agencies concerned with manpower and a labor-management advisory committee representing local interests.

• **Dual Objective**—The Baltimore program has two main objectives. One is to see that war industries get the labor they need. The second is to prevent them from getting it from each other or from importing it to an extent which unnecessarily increases migration into the city.

The second of these problems has been approached through semivoluntary agreements. The 25 war plants and about 500 others were asked, by letter, to sign an agreement that they would not hire anyone now working in a war industry without the consent of the present employer. Arrangements are included to appeal any dispute to the U. S. Employment Service. The agreement also provides that no labor will be imported except through facilities of USES. By Oct. 1, all the war plants and most of the others had signed.

• **Union Pledges Sought**—Baltimore union locals were asked last week to accede to the antipiracy plan and to sign an agreement that they would not transfer union members from other areas to Baltimore except with USES clearance.

Liveright is attacking the transfer of nonessential employees on an industry-by-industry basis, starting with printing and graphic arts. He is asking these



When Baltimore's new Women's Recruiting Center opened this week, its officers were already familiar with

the place having worked there many nights and days previously, making their new headquarters presentable.

firms to go over their personnel, in consultation with their unions, and determine the minimum number of men they require. Then, he wants them to pick the men most suitable for transfer and to urge these men to move into war industries. He'd like the unions to apply a little heat too.

• **Postwar Job Preference**—Crucial to this plan is an agreement on the part of the nonessential employer (1) to give any transferred employee preference in rehiring after the war, (2) to assure the employee that if he comes back he will recover his seniority rights.

The strongest pressure available against the nonessential firm is the general recognition that legislative compulsion is not far off. This influence has been strengthened by an agreement that any men transferred voluntarily will be credited to the firm when the time comes for compulsory transfers.

It's hoped that by the end of the year about 10,000 people can be transferred into war plants.

• **Women Workers Top Supply**—Unemployed women constitute the largest reservoir of workers. There are 39,000 under 45 who have no young children, about 90,000 who do. Of these, it's estimated that 23,000 are willing to accept work, but it's believed that no more than about 13,000 actually can be put to work by the end of the year. This would just about meet the industrial demand for women workers. But unless additional women are hired, some 20,000 men will have to be imported by Christmas.

Baltimore is not following the Detroit scheme (BW—Sep. 5 '42, p33) of a wholesale registration of women, fearing an unwieldy file which quickly would be obsolete. A special recruiting center dedicated this week is designed

to interest women in working. It includes a display of machines operated by pretty girls in well-cut slacks. Any woman who registers will be sent to a job immediately if she has usable experience, will be sent to a training class otherwise.

• **Plant Analyses Likely**—Least progress has been made in utilization of local negro labor. Problem is to induce plants to hire them, and it hasn't proved possible yet to get very tough about it except in the case of open discrimination.

Still untouched but definitely in the offing is a further extension of the program designed to ensure the most economical utilization of labor in the war plants themselves. WMC would like to establish a corps of plant analysts to check on uneconomic practices.

• **Blacklist Insurance**—At the outset, some of the unions sniffed at the labor-management committee, but they saw

Shipyard Story: Production Genius vs. Axis Submarines

Launched (right) ten days after the keel was laid (left)—that's this country's newest shipbuilding record, and credit for the accomplishment goes to Henry J. Kaiser's Oregon Shipbuilding Corp.

Only four days after the launching, Kaiser's latest miracle ship, still swarming with painters, electricians, and plumbers putting on the finishing touches, steamed into the Pacific for trial runs.

This almost unbelievable record was achieved after fresh Berlin claims that Axis submarines were again on a rampage in the North Atlantic supply lanes, and after the disappointing shipbuilding figures for August had thrown a shadow over the general production outlook.

After setting a production record of 71 ships of 800,000 tons in July, August output in American ship-

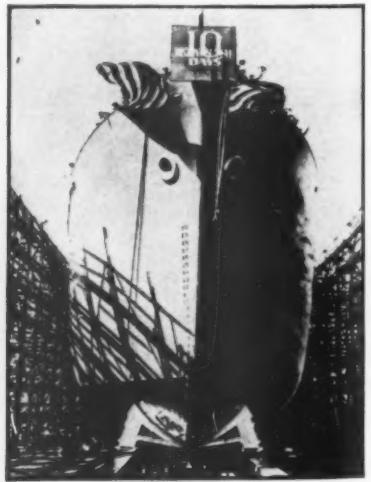
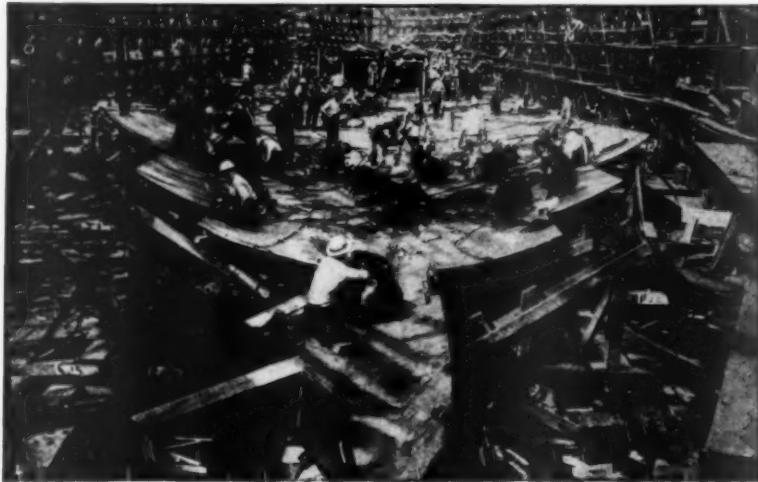
yards dropped to 68 ships of 755,000 tons. This discouraging fact and the recurring reports of steel shortages and supply bottlenecks make the remarkable building record of the Kaiser yards especially welcome. September production figures, due to be released early next week, are expected to show an encouraging gain over both the record figures for July and the less favorable total for August.

Speaking at one of the numerous launchings which commemorated Victory Fleet Day on Sept. 27, Admiral Land declared that the United States is now turning out cargo ships and large tankers at the rate of three a day. This compares with one a day in April, and the speedup to two a day in June. Apparently this country is going to accomplish what skeptics declared was impossible—

turn out 8,000,000 tons of new ships in 1942.

When the first Liberty ships were projected, shipbuilding authorities promised no better production schedules than 105 days for each ship. In the nine months since the first vessels were launched, this record has been cut down to 14 days and, except for the temporary setback in July, there has been a steady expansion in output which is almost certain to continue:

Month	No. Ships	Total Tonnage
Jan.	16	197,628
Feb.	26	289,549
Mar.	26	291,632
Apr.	36	401,632
May	57	619,779
June	67	748,154
July	71	790,300
Aug.	68	753,600
Total	367	4,092,274



It is
operated
Any
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and C.I.O. camps.

Appointment of four employer members proved an even more ticklish job, solved in the end by having Gov. Herbert R. O'Conor make the selections after consultation with the business community and WMC.

Psychological Strain—Thus far, the functioning of the committee has been restricted by the very novelty of manpower manipulation to the members. Too, the committee represents one of the first attempts in Baltimore at labor-management collaboration on a large scale; it imposes some psychological strain on both sides. This hasn't been eased by the fact that the business men on the committee are affiliated with firms of national scope, accustomed to dealing with labor men of the Murray-Green caliber; they are not well acquainted with the local labor leadership.

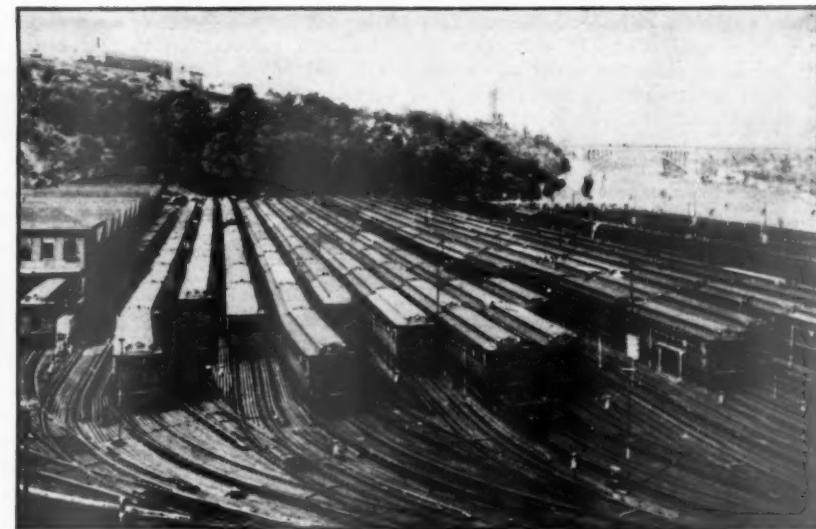
Get the Scrap!

WPB's goal is to bring in 17,000,000 badly needed tons for steel mills. Contribution of industry held most vital.

Launched this week with fanfare and flourishes, the campaign for nation-wide collection of scrap iron and steel got into full swing. Its goal is to bring in 17,000,000 net tons of the scrap that usually comes onto the open market. Most of this scrap presumably would come into the hands of dealers, and thence to the steel mills, in due time, but there isn't any time to wait. The steel situation is tight-tight right now! • **Up and Up and Up**—Reason for the tightness can be seen at a glance: (1) Total consumption of scrap in 1917—peak year in the last war—was 26,800,000 tons; (2) in 1929, consumption was 57,600,000; (3) the next peak, in 1937, was 38,006,000; (4) 1940 use rose to 59,750,000; (5) 1941 shot up to 54,446,000; (6) consumption in the first eight months of this year was 37,088,000 tons, indicating a total need in 1942 for about 57,000,000.

Inventories of open market scrap (commonly called "dealer" or "purchased" scrap) are at a dangerously low level. In September, 1939, when the Bureau of Mines first started compiling such statistics, dealers held 2,460,000 gross tons; on June 30 this year, latest figure available, such stocks had shrunk to 1,021,000 tons.

• **That Autumn Peak**—The immediate job now is to get the steel mills over the



FOR SCRAP OR TRANSIT?

Rusting away on storage tracks in New York City are 250 old "L" cars on which, according to Park Commissioner Robert Moses, head of the

city's industrial scrap metal drive, an open season should be declared. But until the Office of Defense Transportation amends a freezing order on the cars, their demolition, which will yield 7,200 tons of scrap, must wait.

autumn peak in October (the spring high comes in March). As goes October, so may go the next six months.

The public and industrial management now are called upon to do a six-month's job in a few days. Last year's use of purchased scrap totaled 24,400,000 tons (the other 30,000,000 was home or recycled scrap originating within steel mill and foundry). The first half of 1942 took 13,000,000 of open market scrap. The call is expected to be about 14,500,000 tons for the second half, and the 17,000,000-ton goal set for the current drive would allow a 2,500,000-ton cushion, possibly a modest carryover into 1943.

• **Where It Comes From**—There are several major sources for open market scrap. According to the Institute of Scrap Iron and Steel, of the 24,400,000 tons used in 1941, 4,400,000 came from the railroads, 10,000,000 from factory waste and byproducts, 2,600,000 from the pulldown of inventories of consumers and suppliers, leaving about 7,800,000 tons from auto wreckers, farms, demolition jobs, peddlers and collectors, and the general run of dealer or maintenance and obsolescence scrap.

Chances are that the railroads this year won't sell much over half their 1941 total. A canvass by the scrap institute early this year indicated that they would market 2,000,000 tons, but this probably should be raised to 2,500,000 to account for the search for surplus equipment, supplies, etc.

Most important, from the standpoint of "getting in the scrap," is the industrial drive. WPB's Conservation Division is calling on more than 70,000 com-

panies to pry loose their dormant scrap between Oct. 1 and Dec. 31. This is defined as "obsolete machinery, tools, equipment, dies, jigs, fixtures, etc., which are incapable of current or future use in the war production program."

• **Appeal to Management**—Past experience has proved that little is accomplished by just asking industry to clean up their plants. The current drive, therefore, calls on management to make a decision, item by item, using all available plant manpower to get out the scrap and to report on the tonnages moved in 30-day periods.

The scrap industry is confident that if all potential scrap is got from farms, abandoned mines, quarries, dumps where auto bodies have been piled for many years (page 51), and surplus equipment, tools, etc., in factories, plus materials from households, there will be enough to support the war effort. No necessity is seen at present for pulling down ornamental iron work.

• **Relative Qualities**—Household drives yield mostly inferior scrap and are a headache to scrap dealers because, on the whole, it is light and mixed with other metals requiring an unusual amount of preparation. Farm scrap is generally much superior to household scrap because it is heavier.

Scrap dealers are watching with great interest the industrial scrap campaign because machinery, shafting, pulleys, etc., are heavy and good grades of scrap. Scrap from mines, from sunken ships, abandoned railroads, etc., which should be made available by War Materials, Inc., also will be good scrap.

• **A Subsidizing Job**—War Materials,

Inc., a subsidiary of Metals Reserve Co. which, in turn, is an RFC subsidiary, is to subsidize obtaining scrap where the price of the scrap is less than the cost of getting it out. WMI's objective is to

bring out 5,000,000 tons of scrap a year. This isn't information that is broadcast, but WMI has \$500,000,000 to subsidize the job.

Typical operation will be for WMI to

ascertain that in an abandoned mine there is 1,000 tons of scrap for which normal remuneration to the owner would be \$1 per ton. Wreckers and scrap dealers estimate that it would



WANTED FOR ALASKA

The life of many an old mining town in the high Rockies depended on a narrow-gage railroad. Over its reverse curves, squat and indomitable little locomotives negotiated terrific grades or rammed their solid snow-catchers through deep drifts to deliver the traffic. Played-out diggings and shifts to highways killed off many of these lines, their rails being sold for scrap.

Recently the Army and the Office of Defense Transportation decided they wanted to draft the remaining narrow-gage roads for the

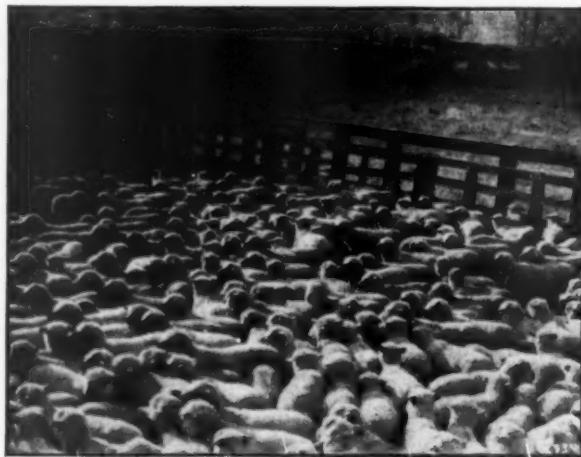
war. They proposed to transfer these lines—locomotives, cars, rails, and all—to Alaska. During the war these would supply the armed forces; after the war they would be there for the development of Alaska's resources. Obviously this would be faster and cheaper than having new equipment built.

ODT first talked of taking segments of narrow gage from the old Denver and Rio Grande Western, one of the most active survivors. Mentioned were a 45-mile slice from Durango to Silverton, 12 miles from Ouray to Ridgway, 52 miles from Gunnison to Cedar

Creek. The first two amputations would affect stub ends, the third would cut communications to western Colorado.

A reported plan to take the entire 200 miles from Alamosa to Durango aroused loud squawks. Yet most of the protests from Colorado state and railroad officials are dignified.

At midweek, ODT was talking soft—it isn't planning any immediate takeovers; it will allow hearings. But Senator Johnson declared WPB already had requisitioned seven narrow-gage engines from D&R.G.W.





Where does this happen except in a Free Country?

LIFE INSURANCE thrives only where men are free to plan their own futures. About 70% of all the world's life insurance is owned today in the United States, where life insurance is truly a servant of the people.

As a protection for its citizens, the laws of each state require that its insurance-supervising officials shall examine into the financial condition and business methods of life insurance companies of that state. These examinations are conducted at periodic intervals, usually at least once every three years.

The supervising officials also have the authority to examine any company doing business in the state, at any other time that the interests of policyholders require it. They are officers of the State Government and are responsible to the citizens of their state for the protection of the interests of policyholders.

Of course, not every state examines every company, but in order that all the interested states may be represented in the examinations, the National Association of Insurance Commissioners has divided the states into six zones. The insurance commissioner of one state in

each zone is named to represent all the states of that zone when the zone takes part in an examination of a company.

Since Metropolitan is licensed in every state and in the District of Columbia, representatives of all these jurisdictions take part in an examination of Metropolitan.

After such an examination, an exhaustive report is written, and copies are sent to the supervising authorities of the states, the District of Columbia, and the Dominion of Canada and its Provinces in which the Company does business. At the offices of these supervising authorities, this report is available to all who

care to see it.

You may never meet him, but the insurance-supervising official of your state is a man you ought to know about. He and the members of his department are supervising insurance companies in behalf of policyholders.

It goes without saying that Metropolitan, and other life insurance companies, welcome these examinations and the opportunity to review their affairs with the supervisory officials.

It is only right that life insurance dollars . . . the most important dollars many men ever put aside . . . should be safeguarded in every practical way.

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This is Number 53 in a series of advertisements designed to give the public a clearer understanding of how a life insurance company operates. Copies of preceding advertisements in this series will be mailed upon request.

Metropolitan Life Insurance Company
(A MUTUAL COMPANY)

Frederick H. Ecker, CHAIRMAN OF THE BOARD • Leroy A. Lincoln, PRESIDENT

1 MADISON AVENUE, NEW YORK, N. Y.





RISLONE is available in five, fifteen, thirty and fifty gallon fauceted drums for shop use—Lithographed packages for the consumers.

KEEP 'EM Prolong Engine

CONSERVATION is the keynote of our War Effort. Materials used in the manufacture of replacement parts must be conserved. Maximum life must be procured from every working part in cars, trucks and busses. RISLONE helps conserve gasoline and oil in all internal combustion engines powering trucks, busses, farm machinery, construction equipment, tugs, and other watercraft.

TRANSPORTATION is essential for War production. Keep your engines in "peak" condition—clean, efficient, smooth running for fuel and oil conservation. RISLONE keeps engines out of repair shop—saves man-hours of labor needed elsewhere—insures more miles of vital transportation at lower maintenance costs.

Millions of engines are developing maximum horsepower—are being kept in "peak" condition through the use of RISLONE, the oil alloy,—a combination of chemicals designed to absorb all types of motor gums. RISLONE rids engines of power-robbing gums on valve stems, piston ring grooves, and oil ring slots. RISLONE frees "sticky" valves, enabling them to seat firmly, thus restoring lost compression and power—assuring thorough adequate lubri-

ROLLING Life with RISLONE

cation of all moving parts at all times for longer life.

RISLONE's high capillary attraction facilitates the "break-in" of new and reconditioned engines and keeps the regular oil free flowing at all times to insure easy quick starting even in sub-zero weather.

Fleet operators, truck and bus transportation companies and motorists have been long-time regular users of RISLONE, and the Armed Forces have used it for the efficient operation of their mechanized equipment for years.

RISLONE is simply added to the regular oil in the crankcase in proportion of one quart of RISLONE to each three quarts of the regular lubricant. RISLONE works while the engine is running, absorbing gums and releasing carbon through the exhaust.

For those sluggish fuel- and oil-wasting engines, follow the Shaler "Tune-Up" procedure described in our illustrated 64-page book, "Engine Performance,"—copy on request. . . . RISLONE is made by the makers of world-famous "HOT PATCHES"; The Safest Tube Repairs Known,—THE SHALE COMPANY, Waupun, Wisconsin, and Toronto, Canada.



SHALER
RISLONE

\$20 a ton to raise the scrap to the surface, prepare it to government specification, haul it to the nearest siding, and load it on cars. Freight to the nearest mill would be \$10 per ton. Thus the scrap would cost \$31 a ton at this mill. OPA ceiling price at this mill is \$18.
Method of Allocation—WMI would take title to the scrap, contract with scrap dealer or wrecking contractor to raise scrap and prepare it, and would pay the price which it had checked to be reasonable. WMI would notify the Allocations Section of WPB's Steel Branch of this tonnage and this section would then allocate this scrap to this mill.

Inasmuch as OPA regulations permit a mill to tilt the ceiling by \$5 per ton to pay excess freight on remote scrap, WMI would take the scrap which costs a total of \$31 delivered to the mill, make the mill pay the OPA \$18 ceiling plus the \$5 allowance for excess freight, thus making the cost to the mill \$22 and leaving WMI to absorb \$8 per ton loss.

Credit for organization of War Materials, Inc., is claimed by WPB's Conservation Division, but the actual job was done by Jesse Jones' RFC, the only government agency dealing with scrap in a position to pay out money. As soon as the idea was laid before RFC, practical business and steel men were put in charge.

Sparkplug of WMI—President of War Materials, Inc., is J. M. Hopwood (BW—Sep. 12 '42, p 58), London-born Pittsburgh industrialist. Private companies headed by this 5-ft.-4-in. bundle of energy are Hagan Corp., Hall Laboratories, Buromin, Inc., and Calgon, Inc., all of which are engaged in war production. Hopwood is a driver, yet a man who builds up great loyalty and confidence. His profanity is forceful rather than artistic.

Hopwood's relations with WPB's Conservation Division appear to be neutral. The inevitable liaison man in such situations is conspicuous by his absence in this one. The Conservation Division has a special project section which Hopwood's WMI seems to be crowding out of the picture. It's probable, anyhow, that he will get more action, quicker, bigger results.

Hopwood's yen is to organize the nation's 22,000 scrap dealers and junk men as the "United Scrappers of America."

Production Problem—Disagreement whether more or less factory waste will be produced this year than last hangs on whether X tons of steel converted into shells, jeeps, tanks, etc. will yield more or less scrap than as many tons fabricated into automobiles, refrigerators, etc. While there is tremendous waste in machining shells, ranging up to one-third, and while in making some guns only one-third of the original metal remains, ship plates are being rolled to

**DISSTON
CAN SUPPLY
THESE
METAL CUTTING BAND SAWS
for immediate delivery**

Improved production facilities make it possible for Disston to offer these high grade Metal Cutting Band Saws. The fine steel and quality craftsmanship of Disston Band Saws will help you in problems of cut-off work in ferrous and non-ferrous metals—cutting die stock—cutting dies to shape—cutting gates and risers from castings—production cutting.



set: *Raker Set*, in all numbers of teeth except 32 per inch—for general metal cutting and especially steel, cast iron and tougher alloys. *Group Set*, in 32 teeth per inch only, for thin wall tubing, mouldings and similar shapes.

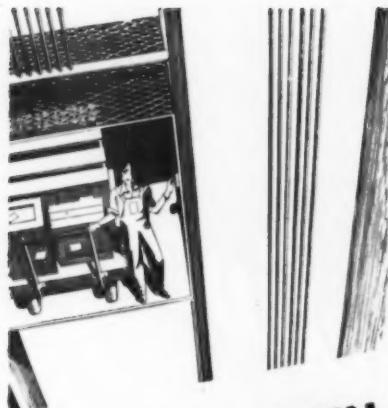


Ask your distributor for complete information or write today to Henry Disston & Sons, Inc., 1028 Tacony, Philadelphia, Pa., U. S. A.

THE DISSTON CONSERVATION CONTROL PLAN, a nationwide program to save essential tools and materials for greater war production, is now being applied with outstanding success by thousands of plants. Send today for the booklet describing the Plan and containing reproductions of Instruction Cards for workmen, covering 34 different types of cutting tools. The cards are supplied on request, without charge.



**GET YOUR SCRAP
INTO THE SCRAP!**



UP AND DOWN
thousands of miles
EVERY DAY

montgomery elevators

**move passengers and
freight in business
buildings and plants**

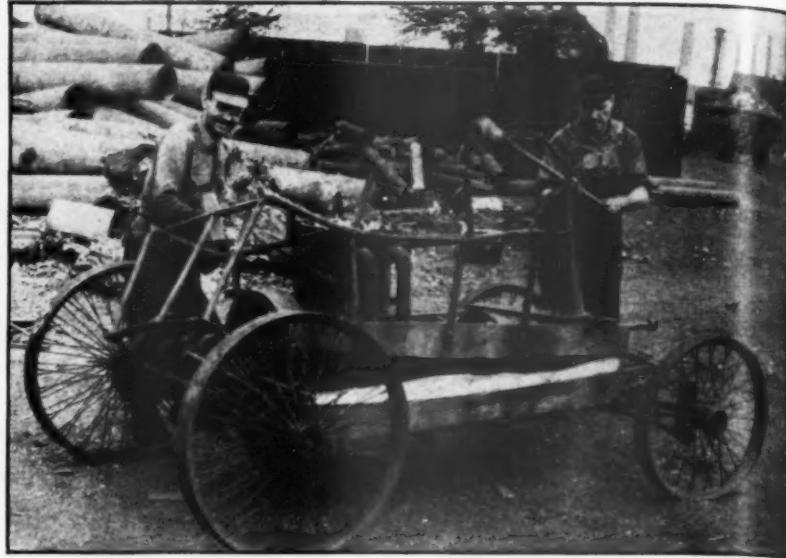
The name Montgomery may or may not be new to you—but for nearly 50 years it has been a byword for elevator service in hundreds of plants. Such firms as Swift & Co., Armour & Co., International Harvester Co. and J. C. Penney Co. use Montgomery Elevators extensively in plants and stores. Users have learned from experience that Montgomery Elevators deliver highest efficiency at low first cost and minimum maintenance cost. Montgomery manufactures a complete line of passenger and freight elevators in all types and sizes. For new or remodeling projects, investigate Montgomery Elevators . . . Details on request.

MONTGOMERY'S PART IN THE WAR PROGRAM

Montgomery is planning, building and installing elevators in many ordnance plants, arsenals and Navy yard buildings.



HOME OFFICE • Moline, Illinois
Branch Offices and Agents in Principal Cities



SENTIMENTAL SCRAP

Priceless to the Winton family of Cleveland, for sentimental reasons, was the 1895 model, the first automobile manufactured by the late Alexander Winton. Yielding to arguments

size, with no waste. The scrap industry's expectation is that factory waste scrap will fall well below 1941.

Therefore, although steel ingot production will be greater this year than last by possibly 3,000,000 to 4,000,000 tons, the chances are that factory waste scrap may not be over 8,000,000 tons this year as compared with 10,000,000 tons in 1941.

No matter what may be the results of the present drive, it may be assumed that dealer scrap supplies will remain scarce. When conditions are slow in the steel mills, more scrap comes out than is consumed; dealers build inventories which will be tapped off at the next peak. Scrap accumulated in 1938 and part of 1939; it's been drained off ever since and now is practically gone. There will be no more accumulation during this war. Consumption will have to be based solely on current intake from here on.

SCRAP HARVEST

The War Production Board served notice to the nation's farmers last week that it meant business in its accumulation of so-called "country scrap." A United States marshall served requisition papers on Ora Benjamin, farmer living near Walled Lake, Mich., not far from Detroit. A scrap crew moved in to gather up an estimated 50 tons of scrap from the Benjamin premises.

WPB officials said Benjamin steadfastly had refused to sell his junk ma-

terials, mostly rusted farm equipment, at regulated prices. He will be paid \$12 a ton, the amount originally offered him. The move was the first of its kind directed against a farmer, although parallel action has been taken against scrap yards.

Benjamin had little to say when the government men moved in. He helped them remove a swarm of bees which had settled on some of the confiscated machinery, then said he just hadn't got around to thinking about the matter until that moment.

GUAYULE SURPRISE

Last March President Roosevelt signed a bill authorizing the Department of Agriculture to set up a guayule project near Salinas, Calif., chiefly to furnish seed for 75,000 acres of the rubber-bearing desert shrub which was to be planted "anywhere in the western hemisphere" (BW—Mar. 14 '42, p 16).

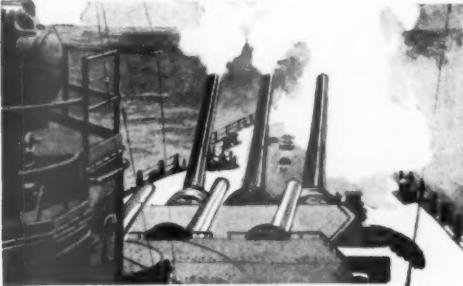
Last week Major Ewen W. Kelly, U. S. Forest Service Administrator in charge of guayule projects, said that the supply of seed now available is six times larger than expected, that 176,000 acres of the shrub will be planted in two Southern California areas (Indio and Oceanside). Planting at Indio already is under way.

On Sept. 17, President Roosevelt asked Congress for \$19,000,000 (to be added to the \$13,035,000 already available) to finance California guayule projects.



Twelve tons of steel scream skyward!

Somewhere on the Atlantic, September, 1941—A thousand men grow tense as the U. S. Navy's newest and mightiest battleship is prepared for the final scene of her firing trials—a multiple explosion of $2\frac{1}{4}$ tons of powder, the heaviest broadside ever fired by any warship of any navy. Not a man aboard can be *certain* what will happen. A loudspeaker counts off the remaining seconds . . . 5—4—3—2—1 . . . Fire! . . . The dreadnought staggers as twelve tons of steel scream skyward. A light molding falls in the wardroom, some locker covers crumple, the lenses are sucked out of a pair of binoculars, but the 35,000-ton "North Carolina" has proved she can take it!



the scores of Watson-Stillman Forged fittings in the maze of pipelines below decks they can take it—fittings chosen to withstand not only high pressures and temperatures, but terrific expansion and contraction stresses of shattering impact of great guns firing.

For, the "North Carolina"—with the highest fire power of any ship afloat—is equipped with high-pressure, high-temperature forged steel fittings made by Watson-Stillman—proof that Watson-Stillman's 94 years of accumulated "know-how" results in fittings that can also meet *your* needs.

Where Forged Steel Fittings are concerned, the name Watson-Stillman has become synonymous with strength, dependability, economy, and long life. Whether you run a battleship or a production plant, it pays to have an ample margin of safety. W-S Forged Steel Fittings give that assurance.



By the NORTH CAROLINA—but also a number of other powerful units of the U. S. Navy's Fighting Forces are equipped, and are being equipped with W-S fittings—many of them for installations where a single failure could cripple an essential service.

Distributor Products Division

WATSON-STILLMAN

The Watson-Stillman Co., Roselle, N. J., Engineers and Manufacturers of Forged Steel Fittings and Valves, Hydraulic Machinery and Equipment—Hydraulic Presses, Pumps and Jacks.

Products of the W-S Distributor Products Division include Forged Steel Screwed and Welding Fittings ranging from 2000 to 6000 lb. ratings; Hydraulic Jacks; High-Pressure, Hand-Operated Hydraulic Pumps; and a complete line of High Pressure Bronze Valves. Write for literature.



WARTIME CEILINGS AND FLOORS

Here, again, we find Uncle Sam in a tight spot. But this is WAR!

We've heard a lot of talk about price and wage ceilings . . . and talk about floors. The Government says that price ceilings must be maintained if we are to avoid inflation. The unions want wage increases because of today's prices. Manufacturers complain that they can't make profits with a ceiling on prices and none on wages.

What is the right price for a product in wartime? What is a fair ceiling for wages? How much profit should a manufacturer make?

Actual facts are the surest guideposts toward the solution of these problems.

This is why the determination of variable costs, fixed costs, break-even point, and profit per unit above break-even point, is the sanest approach to this whole problem of wartime prices, wages and profits.

And, today, there are available to all businesses certain tools of management engineering which will help find the answers.



THE TRUNDEL ENGINEERING COMPANY
Consulting Management Engineering

GENERAL OFFICES • CLEVELAND • BULKLEY BLDG.
CHICAGO • City National Bank Bldg. • 208 S. La Salle Street
NEW YORK • Graybar Building • 420 Lexington Avenue

Case for Lockers

Frozen food plants base plea for materials on savings in metal (in comparison with canning) and in transportation.

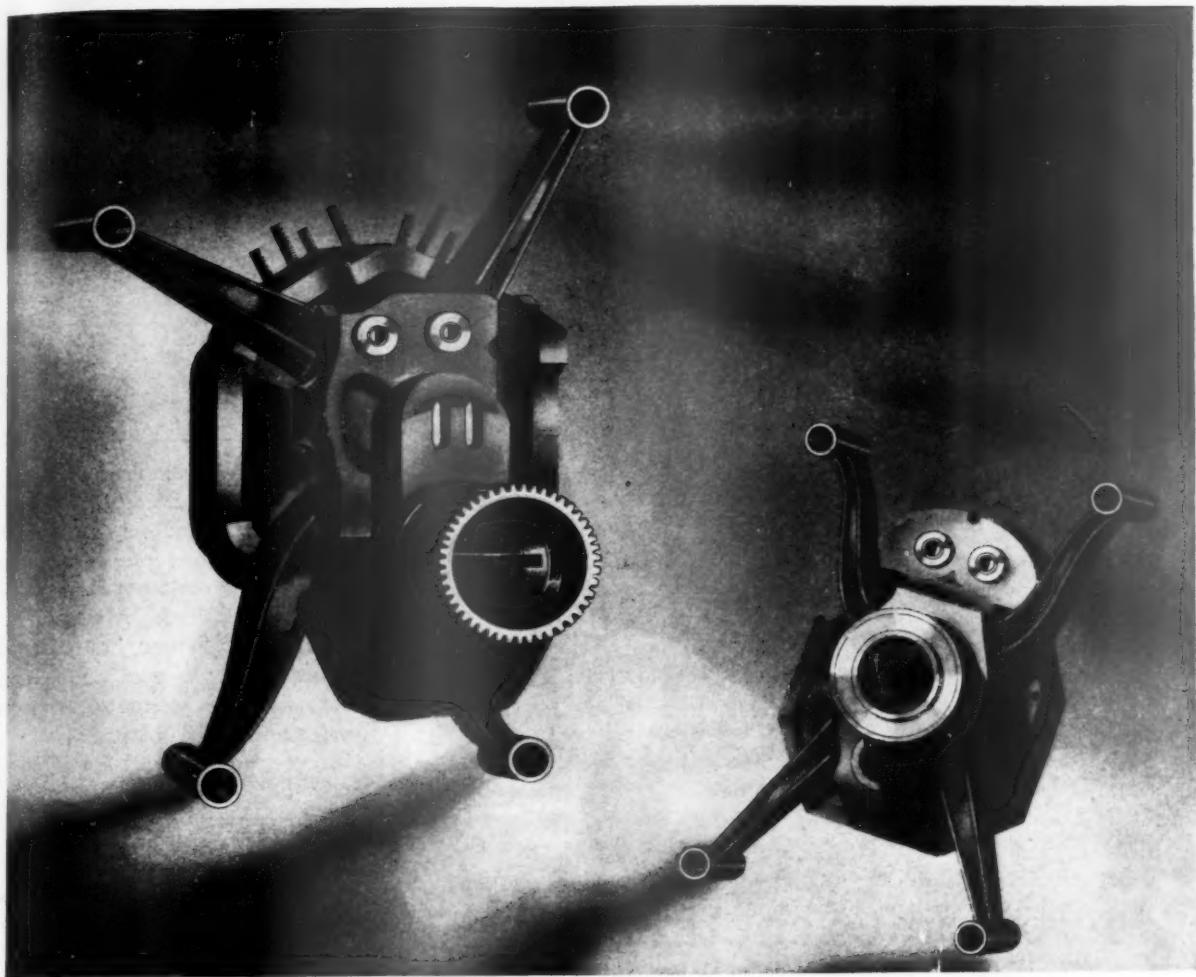
Those representatives of the National Frozen Food Locker Assn., who fought it out all summer in Washington in defense of their industry were dealt a hard blow recently. The Food Requirements Committee designated locker plants as relatively unimportant in today's national food picture. That was hard enough to take, but what really hurt the food locker people was FRC's ruling that no more metals would be allocated for new locker plants.

• Yes-But—Instead of haughtily setting forth that theirs was actually a very large industry (4,500 locker plants serving approximately 1,350,000 patrons with individual leased lockers), spokesmen for N.F.F.L.A. tactfully resorted to the "yes-but" technique. "Yes," they agreed, "we are a small industry, but that's just the point. Give us the equipment to grow with and we will, to a considerable degree, ease the shortages on metals, foodstuff and transportation." Result: The locker plant case is to be reconsidered by FRC.

Last week in Kansas City at the fourth annual convention of the food locker association, there was hardly a delegate but who could state the case precisely: A new locker plant, large enough to serve 300 patrons, requires 2,000 lb. of metal refrigerating equipment (no steel is requested for lockers; substitute materials are available), but it will sharp-freeze and hold in its lockers an amount of vegetables and meat which, if commercially canned, would require 4,000 lb. of metal. Metal saved the first year (according to the association's arithmetic) will be 2,000 lb.; after that 4,000 lb. annually.

• Transportation Saving—Stressing that the foodstuff which goes into locker storage is almost entirely grown by the patron (75% are farmers) or in the immediate vicinity, locker plant operators argue that thousands of ton-miles in truck or railroad haulage are already being eliminated, and that future possibilities in this direction are almost unlimited.

Except for a few newly-established plants, nearly every food locker firm today is obliged to place the names of would-be patrons on a waiting list. Latest survey indicates that 95% of the lockers are rented; a year ago the figure was about 85% (BW-Oct. '41, p24). Rhode Island represents the only state that has held out against invasion by the young (12-year-old) but fast-



why TUESDAY couldn't marry THURSDAY

It happened in an airplane factory.

When brought together on the assembly line, some close-tolerance motor parts did not fit. Yet each part had been made correctly.

One part had been made on Tuesday—accurately. The other part had been made on Thursday—also accurately.

But Thursday was a warmer day than Tuesday. Uncontrolled expansion, due to the difference in temperature, upset the microscopically close tolerances of the two parts . . . thus preventing an accurate fit.

To eliminate the resulting waste and delay . . . air conditioning was installed to keep temperatures *under control*. It had to be extremely efficient air conditioning—with more *exact* temperature and humidity. *Precision* air conditioning

—the kind General Electric is installing in many war production plants.

Today, air conditioning is making enormous, revolutionary advances in meeting stringent wartime requirements. After the war, the lessons learned in making fighting equipment will be applied to bring many new and interesting benefits to the general public.

More people will enjoy air conditioning . . . in homes . . . in cars . . . and in ever-increasing numbers of stores, offices and factories. It will be vastly improved

air conditioning . . . in many ways. Temperature and humidity will be maintained more exactly than ever before. Equipment will be compact . . . flexible . . . economical.

Today, hundreds of wartime industrial users are turning to General Electric for reliable equipment. In the future, G-E air conditioning will fill the needs of all kinds of users.

*Air Conditioning and Commercial Refrigeration Department, Division 423,
General Electric Co., Bloomfield, N. J.*

Air Conditioning by
GENERAL ELECTRIC

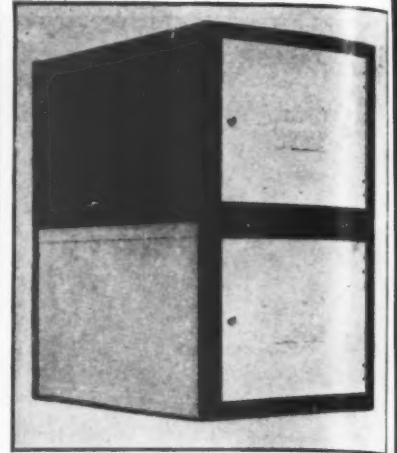
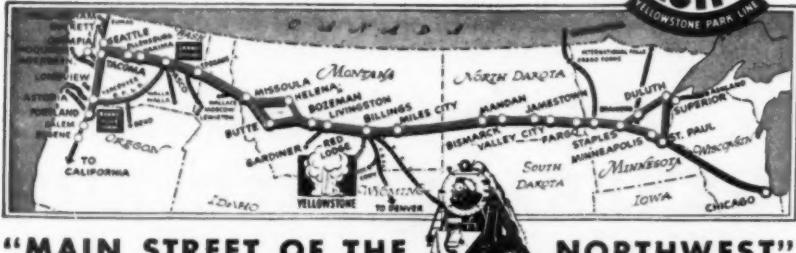


Here comes another screw for Hitler's coffin

WHEN this giant propeller meets its drive shaft, another great American ship will be near completion. Soon after, it will go into service carrying across the seas supplies and equipment to help crush Hitler and the Axis.

America's shipbuilders deserve a big hand for the production miracles they have wrought since Pearl Harbor. For example, many shipyards on the North Pacific Coast and at the head of the Great Lakes, working twenty-four hours a day, have set new records in shipbuilding, and here Northern Pacific Railway plays an important role.

From the steel mills of the East, forests of the Pacific Northwest, and manufacturing centers everywhere, tons of steel, wood, parts and accessories flow swiftly and smoothly over Northern Pacific tracks to waiting ways—making this railway, today more than ever, the "Main Street of the Northwest".



Neither the locker plant owners nor their patrons are demanding white enameled steel lockers this year. Of the many wartime food lockers (fibre is one of the most popular) now offered to the trade, Master Refrigerated Locker System, Sioux City, Ia., is making its current model from scrap ends of Masonite, reinforced with substandard steel. To heighten the eye-appeal the manufacturer suggests the addition of paint but adds that he is unable to furnish same.

growing industry. Although an editorial in the Locker Operator, trade paper, declares FRC's antiexpansion order for the food locker industry is in effect a death sentence, the average mid-western plant operator (the heaviest concentration of plants is in Iowa and the surrounding states) isn't worrying himself sick over an early economic demise. With his lockers all rented and a nice additional income from processing meats destined for storage, his greatest worry today is over the possibility of a breakdown of his refrigerating equipment.

Canneries' Woes

Lack of experienced labor foreshadows shortage of "choice" grades. Civic groups help mobilize harvest hands.

Current labor shortages in western canneries won't be felt as much in curtailment as in quality of the pack.

- **Labor Quality Down**—Canners in California, Oregon, Washington, Colorado, and Utah report that the quality of the labor they are marshaling is such that a larger proportion of their output than ever before will fall in the "standard" grade rather than in "choice" or

"fancy." And these canners are responsible for roughly 50% of the nation's fruit and juice packs and 32% of its vegetables.

The government probably will grab a large portion of whatever "choice" and "fancy" packs roll off the cannery platforms, and grocers will have to be content with what is left.

• Less Skilled—Basic reason for the shift in quality is that the inexperienced help isn't as deft at preparing fruit and vegetables for canning as the oldtimers, many of whom have gone to the shipyards or the services.

Take pears, for instance. Experienced workers could cut a small flaw out of the fruit in such a way that the pears, when canned, could be graded as "choice." But the high school girls, clubwomen, and housewives who replace them are likely to gouge out such a large portion that the fruit can't make the top grades.

• Peach Harvest Peak—This is worrying western canners more than any curtailment in size of pack. California cling peach packers, for instance, believe they'll be able to can more than 14,000,000 cases this year, about 30% more than last year. And despite all the hullabaloo about lack of harvest help, or maybe because of it, California peach growers have delivered the largest amount of peaches since 1937—around 385,000 tons. Western Packing News Service estimates a new record for pears—more than 115,000 tons compared with 113,000 last season.

This doesn't mean western growers aren't shy of harvest hands. They are. But the unusual appeals for help they are making via radio and newspaper advertising, plus around-the-clock work by themselves, their neighbors, Boy Scouts, and even merchants in communities whose prosperity depends on agriculture, has appeared to be turning the trick with reasonable success.

• Civic Groups Helped—Both growers and canners have been impressed with the efforts of civic and business associations in the larger coast cities to organize "save the crops" groups. Frankly skeptical at first, they readily admit now that these efforts have borne fruit—such as a 17% increase in the number of coast agricultural workers this season over last.

Typical of these groups is the San Francisco Wartime Harvest Council. Early this summer the agricultural committee of the Chamber of Commerce laid the groundwork for the volunteer harvesting plan and joined forces with the Y.M.C.A., School Department, Civilian Defense Council, Junior Chamber of Commerce, the U. S. Employment Service, and similar groups. Each submerged its identity in the council.

• All Pitched In—Press, radio, service clubs boosted the council. Bulletin boards and billboards publicized it. The city amended an ordinance to permit

WOOD and LAUCKS GLUE OR LAUCKS RESINS CAN HELP YOU—

WOOD and GLUE are doing the job BETTER

Airplanes & Parts—Gliders
Prefabricated Houses
Laminated Beams—Arches
Torpedo Boats—Patrol Boats
Assault Boats
Ammunition Boxes—Etc.

★ ★ ★

LAUXITE SYNTHETIC RESINS

Pure Phenols—Waterproof
Boilproof-Fungusproof

PF-4

For EXT. D.F.P.A. Plywood—
Meets U.S. Specification
CS-45-40
PF-10

For Aircraft Plywood Meets
U.S. Specification
AN-NN-P511a

Send for information about possibilities of wood-and-glue in your business.



CONSULT *Laucks*
AMERICA'S GLUE HEADQUARTERS
Resin Glues • Casein Glues • Soybean Glues

IS YOUR BUSINESS feeling the "pinch" of critical material shortages? Very likely you can take advantage of that "stronger-than-steel" combination—wood and Laucks Glues or Resins—just as hundreds of priority pressed firms are doing.

For over 20 years Laucks chemists and engineers have brought out new and improved glue formulations for prefabricated housing, giant arches and beams, boat building, aircraft and plywood.

I. F. Laucks, Inc., the world's largest producer of water-resistant water-proof glues are ready for any assignment—ready to step in and do the job where vital war materials are short.

For further information on how the production allies, wood and Laucks Glue or Resins, can fit into your business—write or wire:

I. F. LAUCKS, INC.

In U. S. Address Inquiries to—
SEATTLE—911 Western Ave. CHICAGO—6 N. Michigan Ave.
LOS ANGELES—859 E. 60th St.

Factories: Seattle, Los Angeles, Portsmouth, Va., Lockport, N.Y.

In Canada, Address Inquiries to—
I. F. LAUCKS, Ltd., Granville Island, VANCOUVER, B. C.
HERCULES-LAUX-MERRITT, Ltd., STANBRIDGE, QUEBEC

An Invitation to a MACHINERY MANUFACTURER or INVENTOR

**to plan with us NOW for an enlarged
business AFTER THE WAR**

We are one of the leading makers of machinery in our field. Our wrapping machines are now used by hundreds of concerns—in the food, drug, candy, tobacco, dairy fields, etc. Our plant is modern, and is manned by skilled craftsmen. Our engineering and designing staffs have first rate inventive ability and have been responsible for many outstanding improvements now widely used by the package goods industry. And our current designing work for the war effort comprises such new developments as a cartridge clip loading machine, a new Navy lamp, a gun sight and a designing assignment for a large steel company.

Being heavily engaged in war work—both designing and manufacturing—we have greatly enlarged our facilities. Consequently, we will be in a position to build a larger line of machinery when the war ends. In preparation for this, we are now working on ideas for expanding our

regular line of machines. But we want to do more.

We are thinking of adding other lines of machines used by industries we do not now serve.

- You may have ideas for new machinery which need development. We'll be glad to discuss them with you, and if mutually satisfactory, will develop them with you.

- You may have a machine or machines which you have been making in your own plant, but which you could make with greater profit in ours.

Our final arrangement may result in your coming into our company—or it may be worked out on some other desirable basis.

If you feel you have something on which we might work together, we suggest that you communicate with us, giving full particulars. We can then arrange for a meeting.

PACKAGE MACHINERY COMPANY, Springfield, Mass.

That Key Man In Your Business

Would your firm sustain a loss if he died?

Insurance on his life, payable to the concern, would offset this financial blow.



**The Prudential
Insurance Company of America**
Home Office, NEWARK, N.J.

municipal workers to help. The school department relaxed regulations so that boys could volunteer without jeopardizing academic standing. California Pro-
cessors & Growers set up day nurseries for children of women employees.

The United States Employment Service assigns workers to the various areas. Local labor is given first call, followed by migratory workers. As a last resort, the Wartime Harvest Council volunteers are called. More than 4,000 persons were enrolled from San Francisco.

- **"Stoop" Labor Scarce**—Hardest hit by the shortage of workers, perhaps, are the sugar beet growers. Volunteers from the towns can't help much, for the "stoop" labor needed in beet operations is tough. California growers had to lower their estimates of total yield, but Colorado growers were able to recruit laborers for the beet harvest now getting under way. Barring early frost, they expect a full harvest of all crops.

The deal to recruit Mexican workers for farm jobs may help sugar beet growers next season; it came too late to be of much effect in harvesting this year's crop. However, it is likely to be of considerable help to large-scale farmers in California and the Southwest.

Some 3,000 Mexican field workers were scheduled to arrive in California Oct. 1. About 500 were headed for the Sacramento Valley and 800 for the sugar beet fields near Salinas.

Distortion Ban

**NWLB acts to remedy
steel union's misinterpretation
of maintenance of membership
clause in Big Steel decision.**

Common complaint among employers is that while their own freedom of speech is circumscribed by the National Labor Relations Board's interpretation of the ban against "interference" with self-organization, New Deal labor laws give unions a free voice, even to the extent of untruths in propagandizing the workers.

- **An Equalizer**—The National War Labor Board found a way last week to equalize the gag in plants which come under its influence. Its "Big Steel" decision (BW-Aug. 29 '42, p7) granted maintenance of membership to the C.I.O. United Steelworkers of America in subsidiary plants of U. S. Steel Corp. This required employees who did not resign from the union within 15 days to maintain good standing as a condition of employment, did not require nonmembers to join.

But at the Gary (Ind.) plant of Carnegie-Illinois Steel Corp., the union circulated among employees a handbill which declared in part that "every eli-

Machines to Bring 'em Back Alive!

TODAY this 750-ton, triple-action toggle press, drafted for war, stamps out shatter-proof oxygen cylinders to supply our high-altitude pilots with the breath of life.

Our fighting pilots rely upon the ground work of science and industry to give them supremacy and survival in the air.

100-octane gasoline for flight is one answer. Quality lubricants for production and flying—another. Texaco supplies both.

Through more than 2300 wholesale supply points in the U. S., and with its specialized engineering service, Texaco serves all industry.

THE TEXAS COMPANY

—in all
48 States



In the Midst of the ATTACK!



KEYSTONE Wire

In the headlines you read the success of a daring Commando raid.

Note how the reporting emphasizes one overpowering factor—complete equipment... quickly charging planes, escort vessels, barges, tanks and guns.

No mention, of course, is made of the thousands of "fighting" items made of WIRE. And yet their presence is indispensable—in forms such as the few illustrated here.

Yes, tremendous tonnages of the right types of wire are daily bolstering the all out ATTACK. That's why Keystone's entire facilities—from the open hearth furnaces to shipping platforms—are "drafted for the duration", twenty-four hours a day.

KEYSTONE
STEEL & WIRE CO.
PEORIA • ILLINOIS

Special Analysis Wire
for All Industrial
Uses



MANPOWER WOMAN

Into the lap of Sara Southall will be dumped all of the problems concerning the employment of women which confront the War Manpower Commission. For 21 years Miss Southall has been a member of the personnel relations staff of International Harvester Co. Her new position carries the title of consultant to Brig. Gen. Frank J. McSherry, Director of Operations.

gible employee must now join the union." Carnegie-Illinois President J. L. Perry complained to NWLB that this distorted the decision.

• **Open Letter to Murray**—NWLB considered the complaint, examined the handbill, unanimously sided with Perry. And to Philip Murray, president of the C.I.O. and of the Steelworkers, NWLB Chairman W. H. Davis addressed an open letter urging immediate correction of the "distorted handbill."

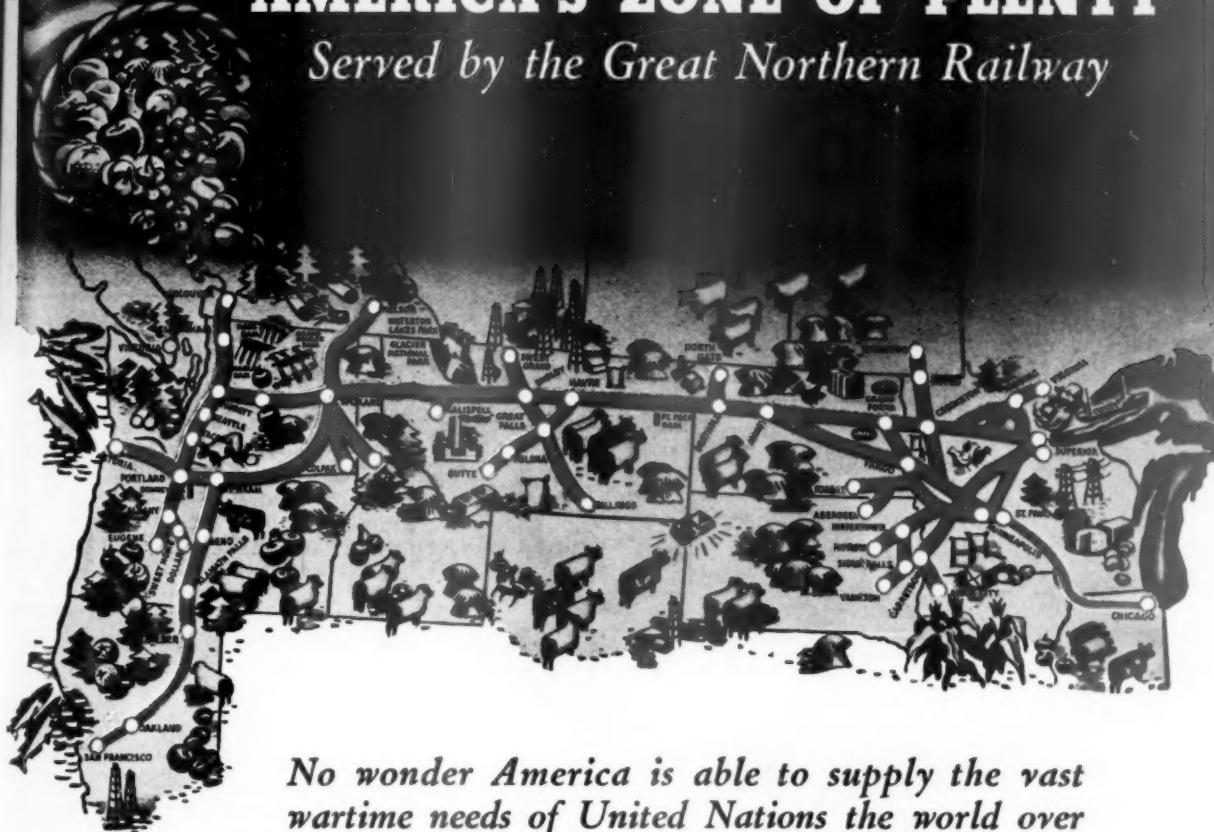
Further, Davis declared it the board's position that any employee who has joined the union on the basis of the misrepresentation may terminate his membership through the established grievance machinery or through appeal to the arbitrator provided for in the directive.

STRIKES COST 266,353 DAYS

A small increase in strikes during August is reported by the National War Labor Board. A total of 229 strikes occurred, involving 79,414 men, and causing the loss of 266,353 man days. NWLB said, however, that the time lost amounted to only 0.09%. The August figures compared with 222 strikes involving 80,722 men with a loss of 233,614 man days in July.

AMERICA'S ZONE OF PLENTY

Served by the Great Northern Railway



*No wonder America is able to supply the vast
wartime needs of United Nations the world over*

For one magnificent area alone yields more wheat than the Ukraine, more oil than the Caucasus, more iron than Luxemburg, more lumber than Norway, more dairy products than Denmark and Holland—more meat, fish, fruit, wool and electric power than France, Greece, Hungary, Austria and Czechoslovakia combined; more of everything than Hitler can take from all his subjugated neighbors.

This American Zone of Plenty extends on either side of the Great Northern Railway from the Great Lakes to the Pacific Northwest and into California. There is abundance in this Zone of Plenty. Natural resources have been

wisely conserved. Farms and ranches enjoy the increase of good breed stock and seed introduced by a pioneer of great vision—James J. Hill, the man who planned and built the Great Northern Railway.

Mr. Hill also established the policy of improving the railway in advance of need. This policy has been faithfully followed by his successors in management, during good years or bad. As a result, Great Northern has been well able to handle an unprecedented volume of civilian freight and materials of war in addition to heavy civilian and military travel in this crucial wartime period.



GREAT NORTHERN RAILWAY

A VITAL ARTERY FOR VICTORY

BETWEEN THE GREAT LAKES AND THE PACIFIC, ROUTE OF THE EMPIRE BUILDER

Steel Price Test

Firm accused of split-order sales to Higgins to duck OPA regulations. Warehouse irked at hint of black market.

A new move to regulate distribution of steel (page 36) has been made in Detroit by the Office of Price Administration when it obtained a temporary restraining order forbidding a small steel warehouse, Newburgh Steel Co., from selling above maximum prices. Subsequent injunction proceedings, scheduled for this week, were put over a fortnight.

• **Violation Denied**—OPA charged that Newburgh was selling large quantities of steel in small lots, thereby obtaining warehouse prices rather than the lower mill prices. The restraining order forbade Newburgh from selling in excess of "maximum prices." Since the company maintained that its prices were within maximum levels, the effect of the order may still be subject to testing.

The buyer in the cases cited by OPA was Higgins Industries, Inc., the New Orleans shipbuilding concern which has been a storm center in the production program since building of its new yards was stopped due to materials problems (BW—Aug. 1 '42, p24). An affidavit filed with the original complaint against Newburgh claimed that large Higgins orders, which would have had to be delivered at mill prices, had been split into smaller lots and sold at warehouse prices.

• **Aggregate Challenged**—But, claimed the complaint, several semi-monthly periods had seen five or less shipments made, aggregating more than 40,000 pounds of steel, thereby violating provisions of Revised Price Schedule No. 49. These were essentially the same charges as those on which Kaiser Co., Inc., and Builders Structural Steel Co. of Cleveland have now been enjoined (BW—Sep. 5 '42, p27).

The company stated vigorously that it had not split any orders, and had not violated price ceilings. Sharp exception was taken to newspaper stories that the firm operated a black market.

• **Operating Costs Higher**—Warehouses customarily charge considerably more for steel than do the mills. The warehouses keep stocks on hand and sell in small quantities, thus justifying the differentials. Some industry opinion, therefore, is that the charges brought against Newburgh do not take into consideration the higher operating costs and service facilities of a warehouse.

Further, it is pointed out by such observers that if a warehouse is able to deliver the quantities allegedly



THE BIGGER THEY ARE

This manufacturer knew that size was one of his most difficult shipping problems. So he talked it over with the H & D Package Laboratory. What happened? Plenty . . . a new engineered corrugated box was adopted. Leg-damage claims were reduced 50%. Packing costs were cut 10%. Packing time was reduced 75%.

Did it affect production? Absolutely. *Faster packing increased potential production by 40%.*

H & D specializes in engineering corrugated boxes for specific jobs. Many war goods manufacturers, many consumer goods producers, are making excellent use of this knowledge. Why don't you? You'll be surprised how many operations can be speeded and made more economical by using the right corrugated box.

You should read our new booklet "How To Ship More Economically." Write for a free copy. It will give you ideas . . . help your shipping department save time, money and materials.



BETTER SEE H&D Authority on Packaging

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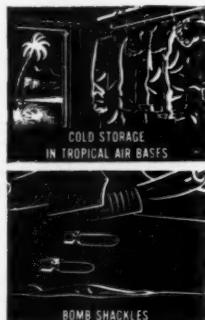
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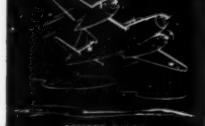
An Award - - FOR RUSHING VITAL WAR PRODUCTS TO OUR FIGHTING MEN



BOMB SHACKLES



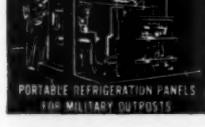
GUN PARTS



BOMBER PARTS



REFRIGERATION FOR ARMY CAMPS



PORTABLE REFRIGERATION PANELS
FOR MILITARY OUTPOSTS

The joint Army-Navy "E" Award flag now waves over the Chrysler Airtemp plant. This coveted banner is a tribute to the men and women of Airtemp for their round-the-clock war effort!

The citation reads, "For high achievement in the production of war equipment . . .". It was earned by meeting stiff production schedules. Vital war products and parts of a wide variety have been rushed from Airtemp production lines to meet the ever-increasing demands of our fighting men.

From delicate mechanisms and units for bombers and anti-aircraft guns to field kitchens for men on the march, all Airtemp war products are playing a vital role! They all call for high-precision manufacture, sturdy construction, unfailing performance and quality.

Chrysler Airtemp proudly acknowledges the Army-Navy "E" Award. It is a fitting reminder to every member of the organization to keep everlastingly at production on the *home front* to back up the men on the *fighting front*!

CHRYSLER  **AIRTEMP**
AIRTEMP DIVISION OF CHRYSLER CORPORATION • DAYTON, OHIO

WAR PRODUCTS OF CHRYSLER CORPORATION: Army Tanks • Tank Engines • Anti-Aircraft Cannons • Bomber Fuselage Sections • Aircraft Engines • Aircraft Wings • Shells and Projectiles • Command Reconnaissance Cars • Field Radio Cars • Troop and Cargo Motor Trucks • Weapon Carriers • Ambulances • Army Carry-Alts • Duralumin Forgings • Air-Raid Sirens • Fire Fighting Equipment • Marine Tractors • Gyro-compasses • Powdered Metal Parts • Cantoniene Furnaces • Field Kitchens • Tent Heaters • Refrigeration Compressors • Marine and Industrial Engines



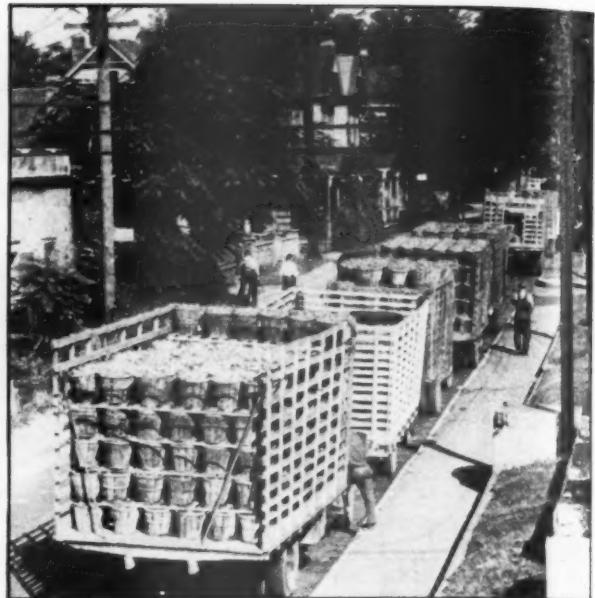
ATTACK FROM HERE!
AIRTEMP'S FACTORY SLOGAN





TOMATO JAM

Whether cultivated atop New York buildings by West Side kids or on mechanized truck farms, tomato vines have given their all for the United Nations this year. A labor shortage due to military and industrial demands for young men now threatens to close canneries and leave much of the bumper crop to rot. Indiana, which claims tomato leadership, noted 13 counties last week in which



neither field pickers nor cannery workers were available. At the Morgan Packing Co., in Indianapolis, a waiting line of trucks grew to 200 because labor to unload was lacking. WPA personnel was exhausted early. Indiana has 115,000 acres in tomatoes, a record. Last spring packers provided free plants and contracted for the crop at \$17.50 to \$24 per ton. Fine weather did the rest. Most of the yield is earmarked for the armed services and for lend-lease exports.

shipped by Newburgh to the Higgins yards—around 165 tons between February and June this year—the WPB itself may be at fault in permitting so substantial an amount of steel to gravitate to warehouses at the same time that scarcity is retarding war work.

Steel Dealer Grief

Warehousemen's worries over how to stay in business and meet war needs overshadow the litigation started by OPA.

Whether the Office of Price Administration is trying to "besmirch a legitimate concern," as Henry J. Kaiser asserted in reply to an OPA injunction suit (BW—Sep. 5 '42, p.28) or is merely scrubbing out black market operators—the intent avowed in the action against the Newburgh Steel Co. in Detroit (page 34)—is a moot question among steel warehousemen (albeit a minor part of their worries). The worries at the top of their list are how to get enough replacement steel to stay in business, how to fill orders for unobtainable kinds of steel with satisfactory substitutes, and to take care of the most urgent war needs of their 2,000,000 customers (who

include 35,000 war contractors and subcontractors).

• **As a Retailer**—Normally a steel warehouse functions as a retailer serving the metal working industries. Before the war its average sale was 400 lb. Now the average is between 900 lb. and 1,000 lb. The steel mills sell in carloads only, that is, lots of 40,000 pounds up.

Contrary to trade practices in most soft goods lines, steel mills do not give their retailers, the warehouses, any trade discount. The mill price of steel is the same whether the buyer is a broker, a warehouse, a shipbuilder, a tank arsenal, or a machine shop.

• **Margin Varies**—The warehouse margin for overhead and profit varies with the kind of steel. On ordinary types of plates, priced at \$55 or \$60 a ton at the mill, the warehouse spread will run about \$20. This takes care of unloading, placing in racks, handling for shipment, local delivery, checking and stock records, overhead cost and profit.

The spread is proportionately higher on more specialized steels, which may be worth up to \$1,000 or so a ton for specialties such as stainless.

• **Priority Problem**—Until a few weeks ago, steel warehouses were required to sell to any customer who could produce a priority of A-10 or better. Their blanket priority rating, with which they had to try to replenish stocks, is A-1-k.

Neither rating has been good enough to get mill steel for several months, and as the war factories pick up production speed, the replacement situation is getting worse rather than better.

Although a warehouse might have some A-1-a or higher ratings to extend back to the mills, its stocks dwindled at an alarming rate. While demand for steel was going sky-high, warehouse steel stocks diminished by 30% between Jan. 1 and June 30 this year. A few of the smaller warehouses have been forced out of business, some have sold out voluntarily.

• **Lines of Distinction**—Warehousemen say their business probably needs some new nomenclature. So far as government controls are concerned, steel warehouses are all dealers in the metal, except brokers. This definition is broad enough to include about 1,300 firms and individuals.

Members of the trade draw another distinction. Warehouses are dealers who serve a regular clientele from a stock of 4,000 to 12,000 different items. They include 600 to 700 companies, about 400 of whom belong to the American Steel Warehouse Assn. Another classification is "seconds dealers." They deal in rejects, short ends, wasters, seconds, overruns, and discards. Their customers make dust pans, hub caps, and so on, and their needs are of the sort that can

People are funny!



"psst-psst-
isn't that-psst-
just like-psst-
Bill-psst-
psst-----"

Somebody you know?

Roosevelt is a headline, a voice on the radio... MacArthur is a head on a poster... Churchill is the man in the newsreels... Stalin is the one with the big mustaches... Hitler is half fiend, half Charley Chaplin.

These important people, however, no matter how much we see their pictures or read about them, are hardly real. They don't live on our street, move in our circles. We don't really know them.

But the Sunday comics sections—holy smokes! That Moon Mullins is a dead ringer for a fellow in our office. And is he a dope? ... Andy Gump's mother-in-law looks like the woman next door before she gets her hair up in the morning . . . And Superman is pretty close to what you'd be if you had the chance—no fooling!

Sure, people are funny!...More of them read the Sunday comics than read the foreign dispatches. Why not? The Sunday comics section, when you get down to it, is just about the most interesting part of the paper

to most people. There's news in it about people we know—have known ever since Pop started reading Sunday comics to us. And the news is always good!

So the Sunday comics section is a natural as an advertising medium. It has heavy traffic, high readership, regular habit, whole family habit, continuity of interest. Where can your advertising miss fewer people?

And Metropolitan Group comics are obviously among the best media. The papers have the comics with the largest audiences—and have the largest audiences—more than 12,000,000 in all. They cover the largest markets, with the largest potentials—and two-thirds of all retail sales! No national medium can touch it for concentration; and few lists can match it!

The space unit is large enough to be impressive. And the cost is mighty low, too. The medium isn't overcrowded yet. It's the Number One opportunity in national media today—and there is no better time to use it! . . . Get the details—soon.

Metropolitan Group

Baltimore Sun • Boston Globe • Boston Herald • Buffalo Courier-Express • Chicago Tribune • Cleveland Plain Dealer

Des Moines Register • Detroit News • Detroit Free Press • Milwaukee Journal • Minneapolis Tribune & Star Journal • New York News

New York Herald Tribune • Philadelphia Inquirer • Pittsburgh Press • Providence Journal • Rochester Democrat & Chronicle • St. Louis Globe-Democrat

St. Louis Post Dispatch • St. Paul Pioneer Press • Springfield Union & Republican • Syracuse Post-Standard • Washington Star • Washington Post

220 East 42d St., New York • Tribune Tower, Chicago • New Center Bldg., Detroit • 155 Montgomery St., San Francisco

★ AMERICA ★ WORKING ★



These war plant fire fighters knock out a dangerous blaze in 19 seconds—using the revolutionary Cardox Fire Extinguishing System. In filling Cardox storage units, R & M Moyno Pumps play a vital role.

• • R & M helping • •

PUMPING liquid carbon dioxide (in solid form, "dry ice") was a tough problem for Cardox engineers, before they tried the R & M Moyno Pump. Liquid CO₂ changes to vapor under some conditions—stymies conventional pumps. But not the Moyno! Self-priming and positive in displacement, without pistons or valves, a large number of Moynos are rolling up phenomenal performance records in Cardox delivery fleets all over the country. And in other industries essential to the war effort, these pumps are solving even tougher problems!

★ Brilliant, too, are the accomplishments of R & M Hoists in speeding war production. In a range of sizes to fit almost any application, these famous material-handlers are conveying everything from aircraft engines to vital steel scrap—quickly and safely.

★ If you have a problem that involves pumping, material handling, converting machines to direct drive, ventilating, or "special" motor applications—write us! Our organization is always ready to help you. The address, Robbins & Myers, Inc., Springfield, Ohio. In Canada: Robbins & Myers Co. of Canada, Ltd., Brantford, Ontario.

Moyno Pumps are manufactured under R. Moineau patents.



be met readily with steel not made to order.

• **Range of Items**—The seconds dealer may have a few thousand tons of half a dozen items. By way of contrast, the steel warehouse normally may stock 600 different sizes, shapes, and analyses of hot rolled bars, although today, the same warehouse might have a choice of only 200. When it comes to "flats," even a large warehouse of this type is likely to be sold out.

The large warehouse is equipped to shear, flame-cut, and bend steel to order. Its stock includes rod, bars, beams, shapes, boiler tubes, bolts, cable, chain, pipes and tubing, wire, sheets, fence, gates, hoops, plates, nails, poultry netting, rivets, shafting, spikes, and washers.

• **Temporary Loophole**—The OPA left a temporary loophole for a kind of price-boosting speculation last fall when it delayed price-fixing of seconds. Later seconds were brought under the same ceiling as prime steel. A new order this month fixes new price ceilings of seconds at the mill, which means that seconds no longer may bring prime prices.

Few lines of business have been placed under more strict controls than prevail among steel warehouses. They are required to report each month on sales, receipts and inventory of items considered vital to war production. Average monthly sales for the first quarter of 1941 are considered as 100% in figuring warehouse quotas. July steel deliveries to warehouses were 62%, and August deliveries were not expected to exceed 50%. For the first quarter of 1942, the figure was 70%.

• **Investigations**—Both War Production Board and OPA officials have undertaken to investigate alleged violations of regulations, or "black market" operations in steel. Warehousemen say a small percentage, perhaps 10% of the operators and 2% of total warehouse-sold tonnage, may be involved in some degree of irregularity and even this involves "interpretation."

In the OPA injunction suit against Kaiser and the Builders Structural Steel Co. of Cleveland (BW—Sep. 5 '42, p. 27), it was charged that price ceiling holes were punched by charging warehouse prices without rendering any warehouse service, and that by splitting big orders into a series of less-than-carload lots, the warehouse sold steel wholesale at retail prices. Hearings have been delayed from one date to another, a preliminary injunction is being drawn up while the temporary restraining order operates under renewals, and both sides may be easing toward a consent decree.

• **Controls Held Faulty**—Warehousemen contend that the OPA-WPB controls encouraged the practices charged. The OPA requires carloads to be sold at mill prices. The WPB, through priori-

To The Corbin Screw Corporation



For **Excellence in the Production
... of War Equipment**

Loyalty — skill — and devotion to duty have won for the men and women of The Corbin Screw Corporation the Nation's highest industrial tribute.

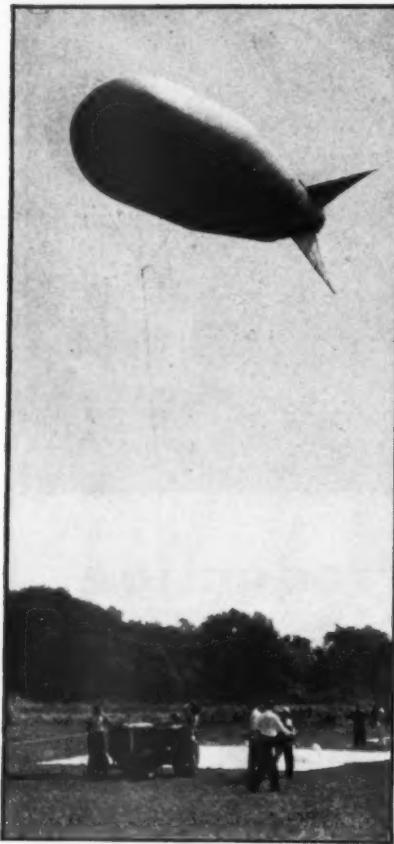
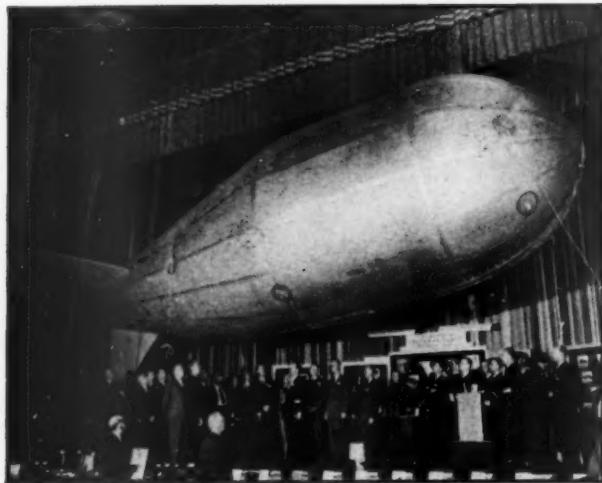
The entire organization has rededicated its efforts to ever-increasing output of material vital to victory.



**CORBIN PRODUCTION WILL
THE CORBIN SCREW CORPORATION**

SPEED AXIS DESTRUCTION!

General Office and Factories, New Britain, Conn.



STUKA STOPPERS

Swing of American rubber companies to mass production of barrage balloons is another reason why the casual motorist must go without new tires. A ground crew tests a Firestone balloon (left) designed to protect shipping from plane attacks. This type is towed high above merchant vessels by steel cables attached to the decks. Nazi pilots diving low enough for precision

bombing risk tangling with the steel line. Another seagoing barrage balloon (above left) fills the stage as part of a U.S. Rubber war exhibit at New York's Waldorf-Astoria Hotel. A land-lubber cousin (upper right) poses for a tail-to photograph at General Tire & Rubber. This model has been used successfully over London and other English cities but differs from previous versions made at Akron in that it has three fins instead of four.

Gas Cutoff Tested

Running of motors on half of their cylinders looks less promising after being put under auto industry's scrutiny.

When the Sun Oil Co. proposed an expedient to increase gasoline mileage by cutting out half the cylinders in automobile motors (BW—Aug. 22 '42, p40), automobile engineers shook their heads dubiously. But, being practical men, they would not commit themselves positively until they had tested the idea. The tests are completed, the engineers are looking wise and saying nothing—but the results have been none too good.

• **Data Given to Council**—Investigations undertaken by several of the largest manufacturers in the industry have been compiled into over-all conclusions and handed to the Cooperative Research Council, which is composed of six representatives of the auto industry, gathered from the ranks of the Society of Automotive Engineers, and six representatives of the oil companies, sponsored by the American Petroleum Institute.

Inasmuch as the results of the tests bore out only in part the hopeful anticipations of Sun Oil, they may not be re-

leased. But opinion in Detroit engineering circles is that the thorough researching on the idea dispelled any likelihood that it would be promoted.

• **Proposed Technique**—Sun proposed to remove the valve lifters of every other cylinder on a motor, so both intake and exhaust valves would remain closed to gasoline flow. Points on spark plugs would be pinched together on the cut-out cylinders, to eliminate sparking. Carburetors would be adjusted, some fitted with minor new parts, to cut the gasoline line flow.

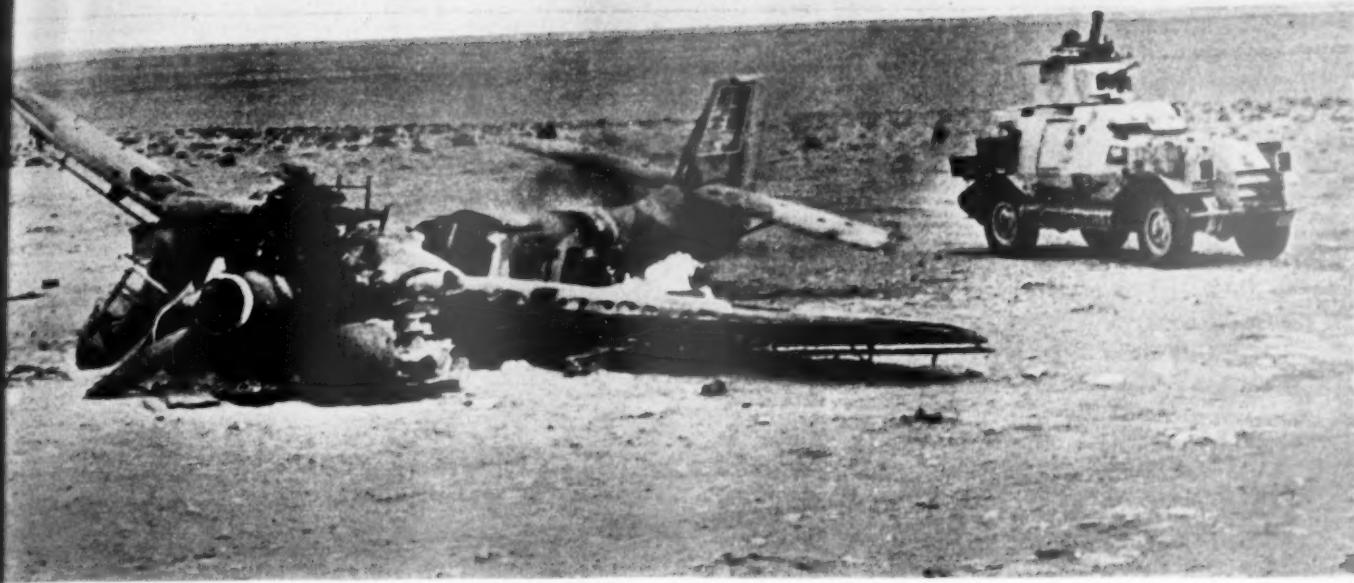
The outlines of the Sun Oil plan were followed in the auto industry's testing. Cars were put out on test grounds to run under road conditions, and were brought into research laboratories for scientific study.

• **Results of the Tests**—Two "bugs" were discovered which appear to more than balance the modest savings achieved in gasoline consumption.

The most serious flaw in the program turned up in the cold room testing. With two or three cylinders cut out in six-cylinder jobs, and with four eliminated on eight-cylinder motors, starting was found to be extremely difficult under conditions simulating winter weather. As one expert put it, there are problems enough in cold weather starting with all cylinders firing; and with one "missing," the turning over of an engine becomes extremely hard. But

ties and allocations, must give its consent to the sale of any carload shipment. If a big contractor, sitting on a red hot war order and armed with an urgent priority rating, needs steel so urgently that he's willing to go through hell and high water to get it, he wouldn't hesitate to pay warehouse prices and split a large order into a series of smaller ones.

The cure for this, in theory, should be allocations, and the cure for some of the bottlenecks of war production, warehouse men say, should be to establish definite tonnages for the warehouses "and see that they get them."



SOMEWHERE WEST OF SUEZ —and East of Indianapolis

FINDING a Marmon-Herrington All-Wheel-Drive converted Ford armored car pictured on any battlefield is no surprise nowadays. Thousands are in the services of the United Nations all over the world—and giving good accounts of themselves, too!

The first mass-production trucks to have power and traction applied through all wheels, these were *proved units* long before this war began. Conversion to military vehicles required only minor changes, and deliveries to our present allies started *immediately after Munich*. Among other far-sighted countries which saw the inevitability of world involvement was the Union of South Africa—and it is one of the several hundred such vehicles that country ordered from us in 1939 which is shown on Libyan sands, ready to give a knockout

NAZIS PAY TRIBUTE TO ALLIES' TRUCKS

OTTAWA: A German document, which has fallen into the hands of the British in the Middle East, contains an eloquent Nazi tribute to the high quality of Canadian and United States workmanship.

It states, in part: "For this reconnaissance, as indeed for every desert reconnaissance, only captured English trucks are to be employed since German trucks stick in the sand too often."

Many of the British trucks in the Middle East were produced by automotive firms in the U. S. and Canada. —Automotive News

blow, if necessary, to the Axis plane down near Knightsbridge.

Marmon-Herrington engineers planned better than they knew, for the cause of justice and freedom, when in 1935, they converted the first standard ton-and-a-half Ford truck to all wheel drive. Thus, the groundwork was laid, and the method established which has

enabled all the great mass-production automotive plants of America to turn out in an incredibly short time the hundreds of thousands of super-traction military vehicles needed by the Allies.

All wheel drive is essential for military operations under most conditions of weather and terrain. Performing brilliantly in deep, loose sand, mud or snow, across open country or desert wilds, they go places and do things at speeds which would be "impossible" for any other type of vehicle.

Marmon-Herrington feels deeply proud that this comparatively small organization has been able to make a real contribution to our national security. In all humility, we pledge our continued efforts to help shorten the war with vehicles of unquestioned superiority to those of our enemies.

MARMON-HERRINGTON

INDIANAPOLIS, INDIANA

with two to four cylinders cut out, starting was said to present problems reminiscent of motoring of 20 years ago.

• **Performance**—Flaw No. 2 involved performance. With the motor running, it was clear at once that power output was severely reduced—to the point that second gear had to be used considerably

more than under normal conditions. Added use of gasoline in second and low gears was said to be in enough volume to wipe out a good share of the savings which could be achieved in high.

The savings of gasoline in high gear, while still a mystic secret until the C.R.C. has meditated, do not appear to

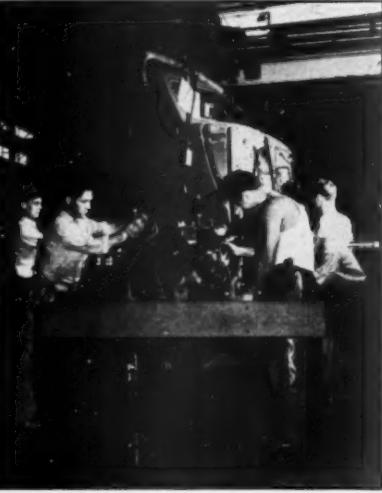
be in direct proportion to the number of cylinders cut out of operation. Apparently this stems from the fact that flywheel and crankshaft of an automobile motor are built to be turned over by a specified number of cylinders. When the number is decreased, they have to do more work than usual, regardless of lessened power outflow from the engine, so they require more gasoline than usual.

• **The Engine Itself**—Beyond such concrete facts as were established in the survey, the question remained unanswered as to what would happen to the engine itself after a long term of use on half or two-thirds of its cylinders. Engineers pointed out that automobile motors are built in fairly delicate balance. Elimination of a proportion of their working parts acts to throw strain on the operative sections and on running gear to the point where unwanted consequences might be logically expected.

But the Sun Oil program may turn out to be a starting point for experiments along similar lines which may prove to have fewer "bugs."

• **Possibilities**—It is possible that the problem of cold weather starts, most formidable bugaboo in adoption of Sun's idea, might be eliminated through some sort of extra equipment which could be inoperative until the engine was started, then function by cutting out the specified number of cylinders.

Or, a suggestion calling for installation of smaller jets in carburetors and the making of throttle opening adjustments might be tested, to the end that the engine would function less powerfully, to be sure—on a more limited fuel supply. Such proposals, and others, will be in no wise surprising, now that the Sun suggestion has had its day in court.



DISASSEMBLY SPECIALISTS

Crating trucks for overseas military shipment is a production job in reverse. After coming off the factory assembly lines, they are driven to the crating point where they go down a disassembly line and are reduced to their component parts.

At Chevrolet's Export Boxing Division, several men work at each station on the disassembly line. One of

the early operations (upper left) involves disconnecting driveshafts from both front and rear axles, to be packed in separate boxes. Then after the removal of various connections, a crane hoists the truck cab from the chassis (upper right) even while other employees start to work on the motor. Bodies are packed in pairs (below) with the top body inverted and space between the two filled with bows and tarpaulins.



Hardware Dimout

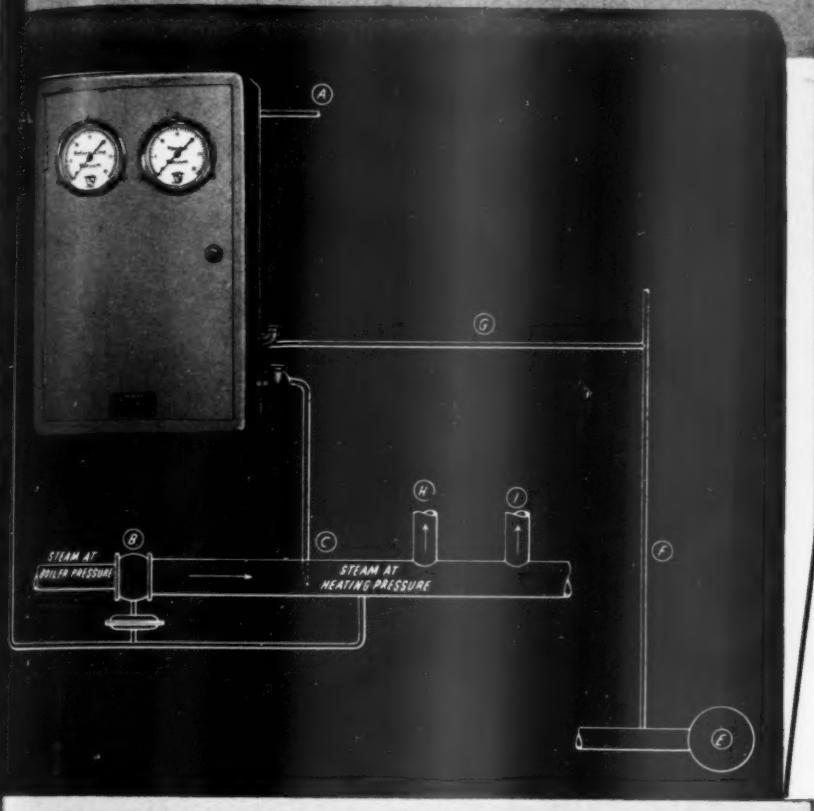
Exhaustion of stocks of irreplaceable items will cause hard sledding. Sales top last year's, but they're sliding.

Right now, the hardware business is magnificent, at wholesale and at retail. But everybody in the trade knows he is living off his fat, liquidating his inventory. Also, he knows that, once his fat is gone, his volume of sales will be terrible—or even worse.

• **Volume High, But**—To measure the rate at which the business is receding, consider the plight of Hibbard, Spencer, Bartlett & Co., Chicago jobber. Its volume is hitting new highs in comparison with previous years—but the month-by-month curve is sliding downhill.

Reasons are that irreplaceable stocks are being exhausted; that other goods which are chronically in short supply

revolutionary and improved method of control that reduces steam costs 20% to 40%



Here is How the HURLEY ELECTRONIC CONTROL is Installed

The Hurley Electronic Control is easily and inexpensively installed in a few hours with a few feet of pipe and a small amount of wire.

A lighting circuit wire run from a 110 V., 60 cycle power line is connected to the terminal block of the electronic unit.

Identifies a motorized pilot valve. This valve operates the volume valve which controls and reduces steam pressure. This valve does not "hunt" but is constantly positioned to allow exactly the proper flow of steam to the system to meet demand.

An impulse tube connected with the main steam line, as shown, and the master unit in control. A pressure below maximum barometric changes is maintained in the heating system. Volume of steam may vary from zero to line capacity.

D. Bleed line connecting motorized pilot valve and diaphragm of volume valve maintaining predetermined sub-atmospheric pressure in the header through which all volumes of steam flow.

E. Vacuum pump for removal of condensate and to maintain sub-atmospheric pressure in heating header.

F. Condensate return line connected with control unit return line and vacuum pump line. Vacuum maintained by vacuum pump at E.

G. Connection from master unit to nearest return line insuring maintenance of predetermined ratio between C and E.

H. & I. Typical heating risers.

Hurley Electronic Controls, Inc. is not only the manufacturer of the Hurley Electronic Control for controlling the utilization of steam. It is also an engineering organization studying the design and development of many different types of special electronic control involving problems existing within specific industries. Inquiries directed to us regarding this or other electronic control relating to special problems will be given prompt and intelligent consideration.

Read These Records of Steam Savings

IRVING TRUST COMPANY
One Wall Street
New York

January 31, 1941

Mr. Raymond Hurley
Hurley Electronic Controls, Inc.
240 South LaSalle Street
Chicago, Illinois

Dear Mr. Hurley:

Answering your letter of January 24, 1941, you are to feel entirely free to refer to us any and all persons who may be interested in your control.

Our experience with this equipment has been very satisfactory. It is giving us most gratifying results in economy and our heat circulation has been much better and more uniform. The maintenance of the equipment itself has been practically nil.

Not the least satisfactory result has been the fact that the control compels our engineering staff to keep the building equipment in first-class condition.

Our consumption per M cu. ft. of building per degree day has dropped steadily every year since the building was opened, the biggest drop - from .6674 to .5510 - occurring the year your system was installed. Our consumption for the 1939-40 heating season was .5303 and all indications are that this year we will wind up somewhere between .50 and .51 pounds.

Yours very truly,
IRVING TRUST COMPANY

The savings effected by the Irving Trust Company of New York are told in their own words in this letter.

Here are other records.

Large Commercial Building—St. Louis, Mo.
"We are glad to inform you that the saving in steam consumption (figured on a degree day basis as contrasted with our average consumption for the past three years) for a full year was 2,880,423 lbs.—an average monthly saving of 20.2%."

A 1,250,000 Cubic Foot Office Building
"A direct comparison on a degree day basis shows a saving in one year of 26%—1,769,900 lbs."

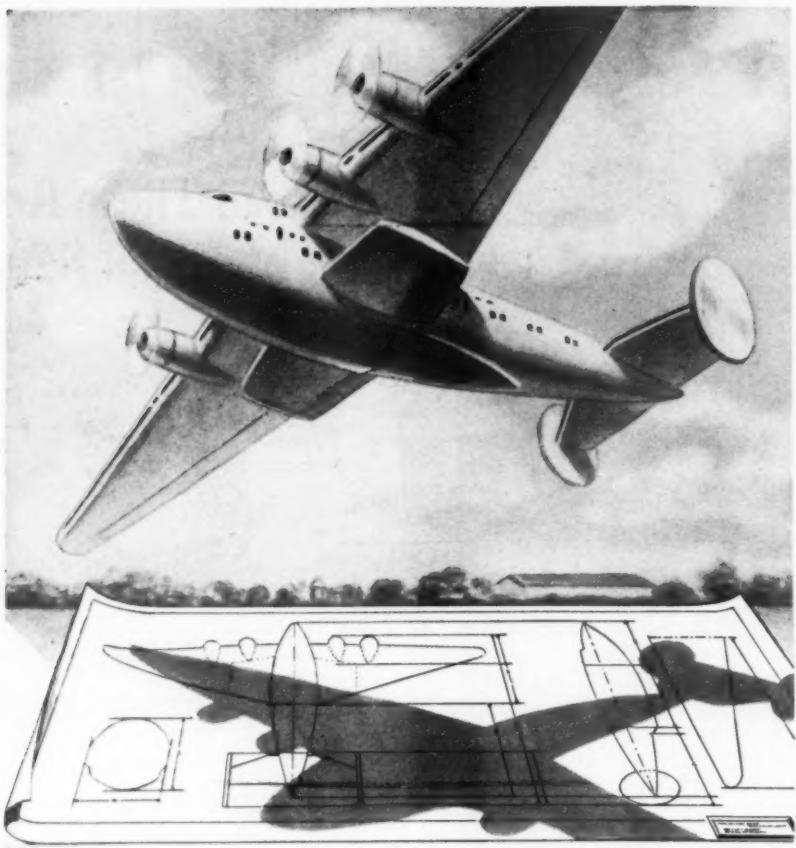
A Large Chicago Hotel
"A savings in steam consumption on a degree day basis for the month of February figures 6,820,788 lbs., in spite of the fact of an increase of approximately 33% in number of guests during this month as against February of the preceding year."

A Large New York Hotel
"Your system shows a reduction in our steam bill of \$42,000 over a period of four years of service."

The Largest Office Building in Chicago
Reports a saving of 6,327,389 lbs. of steam over a six-month period and a total reduction of 29% over a period of five years.

HURLEY
ELECTRONIC CONTROLS, INC.

231 South La Salle Street
Chicago, Illinois



Anken Sensitized Photographic Materials Speed War Production

The Anken Company produces specialized photographic materials for engineering, industrial and commercial use. Continuous development work in speeding reproduction of engineering drawings, charts, maps, specification sheets and other data has given us the know-how for many a difficult job of photographic sensitizing. ★ When problems concerning use of specialized photographic materials arise...ASK ANKEN!

A N K E N C O.
NEWTON, NEW JERSEY

curtail shipments; and that still other items in generous inventory may be sold only to those relatively few customers who can provide a priority or rationing certificate.

• **Shrinkages Seen**—Sizing up at mid-year its prospects for the future, the management came up with some figures which it claims were computed so conservatively that they are really understatement. The tabulation of shrinkage percentages that appeared inevitable because of conditions prevailing on July 6, 1942, in terms of 1941 sales of the affected commodities was:

Items not manufactured.....	39.2%
Items salable only on priorities, etc....	8.2%
Items obtainable only on allocation....	0.4%
Total shrinkage.....	47.8%

Since then, the ax has fallen on so many other groups of merchandise that the firm's estimate of future shrinkage based upon controls in force last Wednesday had reached 60%.

• **Doesn't Include Ersatz**—This discouraging appraisal does not include substitutions of non-critical materials for unobtainables, as barn ventilators of wood in place of galvanized metal. Neither does it include new lines added to supplement dwindling volume. But many of the substitute lines are likely to be purchased by a consumer only in dire necessity.

And, as President Charles John Whipple pointed out last week to H-S-B department heads, there is cold comfort in trying to supplant the annual volume of \$250,000 in lawn mowers (now no longer made) with playing cards, which might generate a sales total of \$10,000 for the house if merchandised with superb skill.

When H-S-B summarized the merchandise situation for its annual sales meeting (BW-Jan.3'42,p19) all of the news about probable supplies seemed bad, with no chance of a turn for the better. Those dire predictions have come true almost without exception. A line-by-line resume of its departmental prospects follows:

• **Cutting Tools**—All cutting and abrasive tools, including mechanics' hand tools, sold only on priority. Volume of sales limited by amount of this merchandise obtainable, since customers with proper priorities are not scarce.

• **Wire Products**—Nails obtainable only on prorata of last year's shipments—take what is shipped and like it. Several of the best-selling sizes, such as 8d, are missing from every shipment because Army and lend-lease take the mills' capacity. No barbed-wire available. Other wire products received according to mills' abilities, not customers' needs.

• **Plumbing and Heating Supplies**—Brass and bronze items have been discontinued. Practically all other plumbing and heating goods are obtainable only on priorities—no more of most of

these articles are being made, the stockpile is supposed to last. Vitreous china closet combinations are reasonably plentiful, but tank fittings are scarce, and the combination is little good without them. Toilet seats are now being made with hinges of wood or plastics.

• **Cordage**—Manila has all been shipped back to sources, on government order. Sales of sisal are restricted to no more than 30 days supply. Cotton and paper twine carry no restrictions, are not hard to get.

• **Paper Products**—Plentiful, lots of new lines are being designed in this group. This class of merchandise exemplifies one of the potential pitfalls of the trade. With most goods hard to get, the buyer is likely to splurge on the things that are easy to get. H-S-B experience indicates that, in general though with plentiful exceptions, the goods on which prompt deliveries and large shipments are obtainable are not in red-hot demand by the public, hence carry a red flag. This general condition prevails not only in paper products but also in gift lines, notions, and what the management considers borderline merchandise and substitutes. For example, the public will buy all the metal toys that are offered—which is practically none. Paper toys, stuffed toys, games, and other items that are plentiful are not in such lively demand.

• **Tinned Goods**—Only those absolutely essential are being made, and these are rigorously restricted to their proper end uses. For instance, milk cans can be sold only to customers who certify that these will be used for milk.

• **Woodenware**—Even those items which, like ladders, formerly carried metal fittings, are surprisingly easy to obtain, principally because manufacturers are designing out the metal.

• **Scales, Choppers, Brushes**—Production has been stopped on many of these, and deliveries on the rest are very slow.

• **Galvanized Ware**—Nine months ago this was hard to get because of the shortage of zinc.

Now, with new designs employing enameled lids, and so on, the items are scarce because manufacturers cannot get the requisite steel. Some promising substitutes are in process of development, particularly in pressed paper.

• **Velocipedes, Parts, Baby Walkers**—All of these except bicycles (page 48) are out unless redesigned in wood. All-wood products are arriving, good enough to astonish the younger men but not the oldsters, who recall that most of these articles were made in wood before metal supplanted it for economy.

• **Sporting Goods**—Baseballs, golf balls, tennis balls still coming, with short quantities and reclaimed or reworked rubber. Fishing tackle, golf clubs, other metal items are out. The line as a line is almost defunct.

• **Stoves**—Victory models only, manu-

It's practically all Resin-Bonded Plywood



Airframe structure of a new trainer, which reveals the extensive use of resin-bonded plywood in this airplane's construction. TEGO-bonded plywood is

the accepted standard for aeronautical plywood complying with the rigid requirements of U. S. Army and Navy Specifications.

...the wonderwood made possible by TEGO RESIN FILM

The advent of TEGO Resin Film in 1935 changed plywood from a product of limited use into a basic structural material. In that year, TEGO gave plywood the strength of steel, complete resistance to water and weather, and the ability to be produced quickly in great quantity.

The modern resin-bonded airplane, glider, torpedo boat, and scores of other important products

are all results of the development of this pioneer resin adhesive.

* * *

Have you a problem concerning the use of resin adhesives in military plywood? Let us have it. Since our introduction of TEGO, this company has developed a quality resin adhesive for every type of plywood and has initiated every important advance in resin-bonded plywood.

Other Synthetic Resin Applications Developed by The Resinous Products & Chemical Company

WOOD AND METAL COATINGS, resin emulsion paints, synthetic rubber plasticizers, gas-resistant coatings, ion exchange resins for purifying water—all these are synthetic resin applications developed in our Laboratories which are today constantly expanding through the use of resins we manufacture. Two illustrations of this are:

DURAPLEX—A large family of alkyd-type finishes which is speeding the production of wood and metal war products. DURAPLEX finishes have outstanding adhe-

sion, toughness, fullness, gloss, pale color and durability. They are widely used on tanks, jeeps and military trucks.

AMBERLITE ION EXCHANGE RESINS

A group of synthetic resins that produce salt-free water, purify chemicals, recover metals from solutions and help increase production of synthetic rubber. Introduced less than two years ago, the AMBERLITES have already found many applications in diversified processes where water of a high degree of purity is required.

THE RESINOUS PRODUCTS
& CHEMICAL COMPANY

WASHINGTON SQUARE, PHILADELPHIA, PA.

372
373

factoring concentrated, sales only to replace unusable old units.

• **Bedding**—Better class mattresses practically extinct, because cannot use steel or hinters. The cheaper lines are still obtainable.

• **Kitchenware**—Glass in tremendous demand, supply fairly free. Demand less, but supplies free, on pottery and porcelain dinnerware. Enamored, japaned, and hollow ware have been prohibited from manufacture, but there is quite a lot of it around, still in the stage of cleaning-up stocks and work-in-process.

• **Builders' Hardware**—Brass and copper and bronze are all gone, plating is eliminated, factories are all on war work. The small volume of construction makes supplies adequate, probably for a long time.

• **Padlocks, Keys, Keyblanks**—Locks obtainable only on high priorities, steel and iron exteriors only. Keys and keyblanks practically unobtainable.

• **Paint Brushes**—All-bristle brushes gone, except in short sizes for varnish. To get the Victory brushes, of very inferior quality, requires priorities and takes 30 days for deliveries. Brush reclamation operations being conducted by some manufacturers. Sponges scarce, not because of war, but because of sponge disease in Caribbean. Chamois still obtainable as needed. Paint manufacturers are beginning to ask for priorities, keep changing their formulas—

but paint business through hardware channels has not been good, because of curtailed construction.

• **Electrical Goods**—Motors require top priorities. Flashlights are Victory model, and manufacture is being concentrated. Dry battery supply depends upon allocation of zinc, not too promising. All appliances are out for the duration, with small stocks in wholesale and retail hands. Lamps, cords, sockets likewise. Mazda lamps still available in prorated percentages.

• **Firearms**—Stocks of all arms selling under \$50 apiece were taken over by the government. Ammunition is out.

• **Clocks**—Manufacture is practically discontinued, but the trade is hoping one factory may be kept going on a Victory model.

• **Cutlery**—All restricted in quantity to: butcher knives for packing houses 60%; household cutlery 50%; shears 50%; scissors, carving sets, hunting knives, table cutlery, pocket knives less than 3½ in. in length, prohibited. Silver plated ware, out.

• **Vacuum Goods**—Fiber lunch kits are now being made and sold, the trade hopes for a complete line of Victory models in glass and papier mache.

• **Farm, Garden Supplies**—Drastic simplification of designs and small allocation of materials seem probable. Program not yet certain. Wood wheelbarrows are being made, but deliveries are slow.

Brake on Bikes

Concentration of all output in two firms leaves others free for war work. Monthly output cut to 10,000 Victory cycles.

The bicycle industry last month was concentrated to producing in only two factories and making only its 35-lb. Victory model. Total authorized monthly output for the Westfield Mfg Co., Westfield, Mass., is 6,000 units, for Huffman Mfg. Co., Dayton, Ohio, 4,000 units. This figures out to 6½ of 1941 production for the industry.

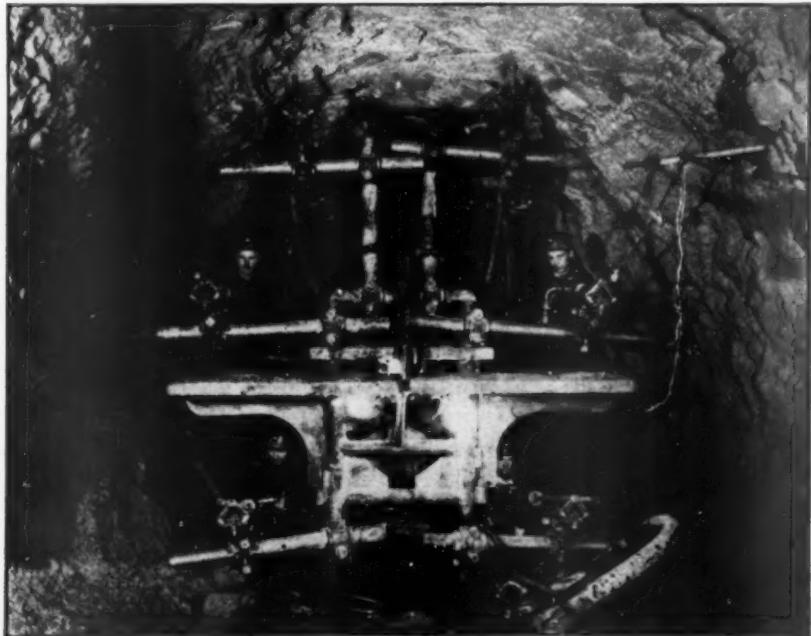
• **Big Steel Saving**—Weight of the former models averaged about 50 lb. Hence the saving of metal on even this small production should be 75 tons a month. Luxury lightweight bikes of pre-war make weighed about 40 lb., and these never reached 2% of total U. S. sales. Reason was that the American market for bikes was primarily juvenile, and the kids craved bulky-looking, balloon-tired jobs on which they could hang further pounds of gadgets.

Huffman and Westfield got the WPB's nod to make all Victory bikes from here on in because they have for years made bicycles for the Army. They will continue making whatever will be needed for military purposes, including such special types as folding models. Their military output must come out of their monthly quotas aggregating 10,000. Since for today's Army and Navy a mere 10,000 of almost anything is chicken feed, it looks none too rosy for civilian consumers, once the country exhausts its present stockpile of 230,000 new machines in dealers' hands (and duly registered by number with OPA).

• **Ceilings Vary**—You can tell the maker of a Victory bike by an H or W preceding its number. Retail ceiling price is \$32.50 for the northeastern area, \$1 more elsewhere except in the Far West, where the differential is \$2. Big chain store distributors are asking approximately \$1 below ceilings, and the big mail order catalogs price them about \$3 below ceilings, f.o.b.

Statistics of production by individual bicycle makers are not made public. Biggest firms in the industry are probably Arnold, Schwinn & Co., Chicago; Cleveland Welding Co. and Murray Ohio Mfg. Co., Cleveland; Homer P. Snyder Mfg. Co., Inc., Little Falls, N. Y.; and Westfield. Other major companies are: Colson Corp., Elyria, Ohio; Huffman; Iver Johnson Arms & Cycle Works, Fitchburg, Mass.; Manton & Smith Co. and Monark Silver King, Inc., Chicago; and, Shelby Cycle Co., Shelby, Ohio.

• **Bombs, Not Bikes**—Official reason for concentrating production in two fac-



SIX-DRILL JOHN

A seven-ton jumbo drill carriage which puts six pneumatic drills into play at once is the weapon Long John Austin, the nation's fastest tunnel operator, uses to set his records. The ma-

chine is currently being used in the Alva B. Adams water diversion tunnel running 13 miles under the Rockies' continental divide from Grand Lake to Estes Park, Colo. (BW—Jul. 13 '40, p32). Ordinary tunnel operators use four-drill carriages.

"Let 'Em Have It!"



"Peel off and let 'em have it!" The squadron's ready to let loose with all the devastating fire of its guns... with ammunition boxes loaded for Japs!

Mallory's share in assuring effective fire-power for our fighter planes consists in supplying Mallory Standardized Spot Welding Tips that speed the assembly of stainless steel ammunition boxes.

Mallory Welding Tips, for instance, are used by the Curtiss-Wright Corporation for preliminary "tack" welding. Then each box is finished by spot welding with Mallory tips, in the welding machine shown below, at a speed of 90 spots a minute.

Resistance welding electrodes developed and standardized by Mallory metallurgists and production engineers speed the welding of many aircraft parts besides ammunition boxes. Wings, stabilizers, ailerons, antenna masts, wheel columns . . . the list is almost endless . . . and Mallory electrodes for spot, seam and flash or butt welding do these jobs faster at less cost, because they need

redressing less often, produce more welds per electrode, and assure sound, clean welds.

For many years, Mallory has supplied resistance welding electrodes, electrical contacts and contact assemblies and a complete range of electronic parts . . . to meet the needs of scores of peacetime industries. Today, as America takes the offensive against the Axis, Mallory is producing in greater quantity . . . with even higher quality standards . . . to get our warbirds flying, our guns shelling, our ships armed, our tanks rolling.

Maybe our present research, both metallurgical and electronic, may have applications . . . now and for the future . . . in your own business.

P. R. MALLORY & CO., Inc., INDIANAPOLIS, INDIANA

Cable Address—Pelmano



MALLORY

SERVES THE AERONAUTICAL, AUTOMOTIVE, ELECTRICAL, GEO-PHYSICAL, RADIO AND INDUSTRIAL FIELDS WITH . . . ELECTRICAL CONTACTS, WELDING ELECTRODES, NON-FERROUS ALLOYS, POWERED METAL PRODUCTS AND BI-METALS . . . RECTIFIERS, DRY ELECTROLYTIC CAPACITORS, SPECIAL HIGH RATIO ANODE PLATE CAPACITORS, VIBRATORS, VITREOUS RESISTORS, POTENTIOMETERS, RHEOSTATE, ROTARY SWITCHES, SINGLE AND MULTIPLE PUSH BUTTON SWITCHES, POWER SUPPLIES, BATTERY BOOSTERS AND CHARGERS



The Bullard V.T.L. is genuinely "two-fisted"—with its two heads cutting at the same time. Back in the thirties, when a dollar was as big as a balloon, people bought V.T.L.s because they cut costs. Today, when time is everything, they buy them—because they increase production. Proof? The airplane engine industry is the largest user of V.T.L.s in the world.

Tomorrow, when peace comes the fight will still be on two fronts—costs and production—and V.T.L.s will still hold the key to Victory.

THE BULLARD COMPANY
BRIDGEPORT, CONNECTICUT

BULLARD

tories was to leave the others free for war orders, shells, shell adapters, machine gun parts, airplane parts, incendiary bombs and projectiles, and bomb fuses.

The great bulk of the industry's output was marketed through Sears, Roebuck & Co., Montgomery Ward & Co., Western Auto Supply Co., and the three big rubber companies' service-station chains—Firestone, Goodrich, and Goodyear. The mass distributors are as closemouthed as the manufacturers, but it is a common guess that they handle 70% of all bikes sold, leaving not more than 30% for all of the so-called independents.

• **Pound-conscious Public**—Use of bicycles in the U. S. reached its peak about the turn of the century. This figure drifted downward to a bare 400,000 in 1932, then started upward strongly as the adult public began taking an interest in the possibilities of pedaling a few pounds off its hips and lower legs. By 1941, the last year of unrestricted production, the volume was about 1,800,000, approximately where it started some 40 years before.

With all of this boom, the total number of bikes in use here equips around 9% of the population, and most of the owners are kids. In Britain, even before wartime restriction of automobile manufacture and use, about 25% of the population owned bikes and used them for transportation rather than sport.

• **Rationing Boards Tough**—Demand from the gas-rationed seaboard states already has a strong flavor of transportation equipment. Under rationing restrictions, however, all sales have a workaday background. One batch of nine certificates received by Sears in one day was reported as typical: 3 newspaper carriers, 1 each of dairy farmer, postmaster, drugstore deliveryman, war plant worker, furnace repairman, egg packer. Local rationing boards are being judicious in awarding certificates, say distributors, and more than a few boards are failing to use up their monthly quotas because many civilians who are eligible do not realize they could qualify. The regulations are far from easy-going, but anyone who really needs a bike can usually get a certificate.

• **Quotas May Go Up**—Bulk of bicycles currently being delivered to users are coming from the stockpile. Monthly manufacturing quotas April through June were 63,000 bikes, in July and August were 50,000. But the August and September sales quotas were 90,000 each.

Canada, after clamping down on bikes, last May was forced by the irreducible transportation needs of its people to raise its 1942 production quota to 150,000, which is about the production rate now authorized for the entire U. S.

Graveyards Astir

Auto wreckers compelled to change their methods as WPB applies 60-day turnover rule to speed scrap collection.

Source of considerable debate these days among the nation's 20,000 auto wreckers is the effect of the 60-day turnover rule recently applied to them by the auto graveyard section of the War Production Board. In requiring yard owners to dismantle cars and dispose of the iron and steel scrap much more rapidly than ever before, this rule also increases the costs of labor—most of which is involved in stripping the parts, rather than preparing the scrap left over.

• **A Change in Practice**—Wreckers usually prefer to let autos lie around in assembled form, thus confining the cost of labor to those parts which are sold. Complete dismantlement means that all parts must be taken off whether sold or not. This writes up the value of inventories because of the labor invested in unsold parts.

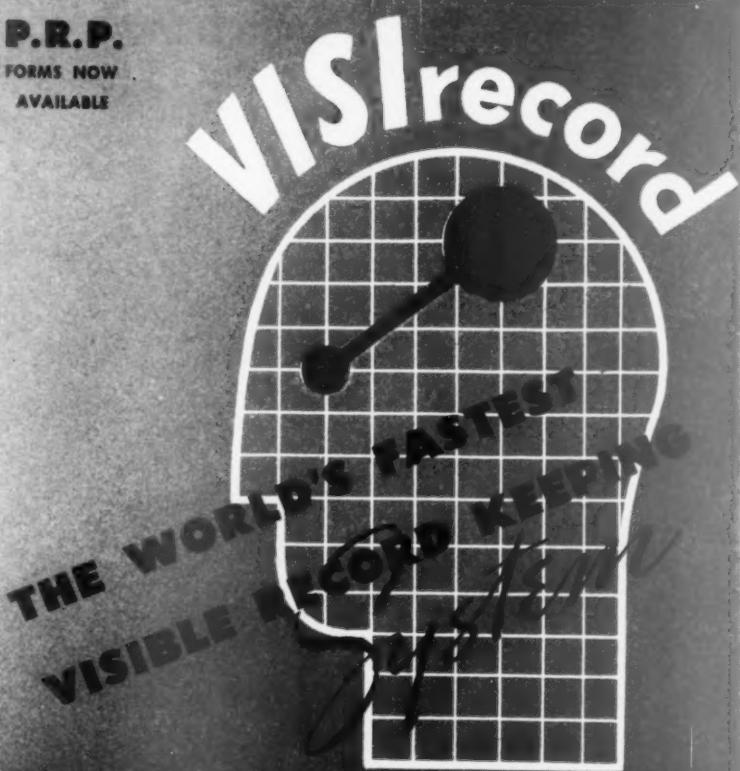
Most wreckers, however, agree with the WPB that unless they subordinate their parts business to scrap recovery, they will contribute relatively little to the war effort. Recent extension of the 60-day turnover rule to individuals and garages as well as wreckers has heartened the industry considerably by holding forth the promise of greatly increased volume and flow, for the rule means that the WPB has the power to require that owners of idle autos either put their cars into running condition in 60 days or junk them.

• **New Inventory Controls**—In addition, the auto graveyard section recently received the power to supervise all iron and steel scrap yards in order to expedite the flow of these metals to the steel mills. To do so, the section is evolving regulations governing the permissible ratio of inventory to monthly sales.

The 60-day turnover rule is forcing some graveyards which have more cars than they can handle to sell them to better equipped wreckers, or to scrap dealers, who then send flying squadrons of acetylene torch men around to the yards to cut up the stripped cars into balable scrap.

• **Wartime Difficulties**—A major headache of the wreckers these days is the general migration of their best torch operators, scrap graders, and bundlers to the war factories, where their talents are in great demand. Even collectors of junk cars are finding the grass greener elsewhere these days. With interest in automotive travel discouraged by tire and gas shortages, the sale of parts has declined somewhat. The ceiling on scrap makes it difficult for wreckers to

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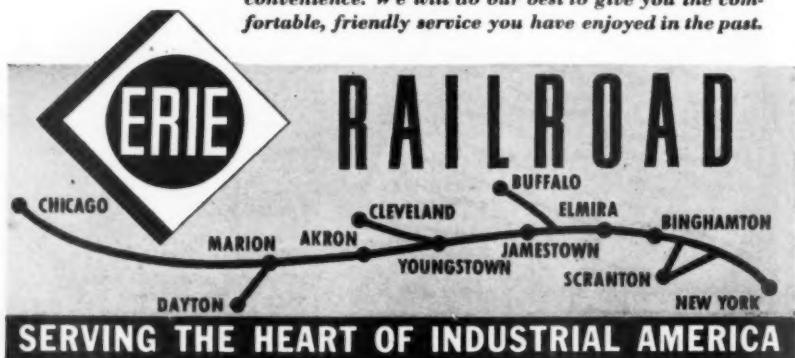
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• The arms American industry is turning out in ever-increasing quantities can't gather dust at home. They've got a date to keep—with the Axis! So the conductor's signal sends the fast freights roaring down the main on wartime schedules. Erie trains are proving to industrial America that transportation can keep pace with production.

If you must travel, make reservations early to avoid inconvenience. We will do our best to give you the comfortable, friendly service you have enjoyed in the past.



compete with war factories for labor and the services of collectors.

For years the auto wrecking industry was a no man's land of business—uncharted, unregulated, and unrecognized. Suddenly after Pearl Harbor, it was regulated, charted, and recognized.

• **WPB Takes a Hand**—On Jan. 1, 1942, the auto graveyard section of the WPB's industrial conservation bureau was created, charged with responsibility for increasing the flow of scrap from these yards. Ordinarily little more than 8% of the nation's iron and steel scrap is obtained from wrecking yards, but WPB hopes to boost this considerably by speeding the flow of scrap through the yards and by increasing the rate of car junking.

Before war demands for scrap made



LADY LIFTERS

The Carnegie-Illinois tin mill at Gary, Ind., is making the boldest move of all in substituting women in he-man jobs under pressure of war necessities. It is schooling four women, all of them married and two of them mothers, for the operation of huge, electric overhead cranes. They are developing coordination rather than muscle, since the person in the cab must manipulate controls which pick up a 15-ton load, hoist it, let it down, move it back and forth across the bridge of the crane, and move the entire crane along its own rails. Veteran craneman Andrew Yasosky, assigned to teach the ladies, didn't appear too happy about it all. Said Yasosky, "It takes a good week to train a man for this job, a man with some technical experience. Now these girls—maybe it will take two weeks, maybe three. They'll have to learn to handle a double trolley, two hoists and two bridges."

themselves felt, the auto wrecking yard considered itself the "poor man's garage," rather than a source of scrap, for by far the largest part of a yard's business consists of selling old parts.

• **What's in a Car**—Cars are sometimes sold intact to mechanically-minded hopefuls who believe they can restore the car to running condition. The average auto will yield only 1,500 lb. of scrap, which at ceiling prices will bring only \$15. The motor alone, however, if rebuilt, commands from \$40 to \$180. The battery means \$1.25; the radiator, \$2.50 to \$5. Tires are worth some \$5, while wheels bring \$6 to \$8.

In addition, the average auto may yield about 250 lb. of nonferrous scrap from broken radiators, wiring, and sparkplugs, worth 8¢ a lb.; and 80 lb. of rubber from torn tires, worth 1¢ a lb. There may be some paper gleaned from beneath the upholstery fabric, behind the door covering, under the roof, and behind the front floorboards.

• **How Business Is Done**—About 95% of auto wreckers simply wait for customers to come around and pick out parts they want. A few, however, such as Willinsky in Minneapolis, and Warshawsky in Chicago, operate huge mail order businesses, selling every type and brand of part throughout a wide area.

When the WPB decided to call a halt to production of new autos, wreckers at first saw the beginning of the end. Opinion swung the other way when tires and tubes were rationed, for wreckers felt this would increase the rate of junking. Time proved, however, that people tended to hang on to autos longer when they knew they could not obtain new ones.

• **Scrap Tonnage**—The result has been a slow, uneven rise in the junking rate, due chiefly to the increased efforts of collectors and wreckers to round up every available car. This has been reflected in the increased tonnage of iron and steel scrap shipped from auto graveyards this year.

Starting with April, the first month in which figures were ever compiled, the tonnage was 350,000 tons. In May it went up to 383,000; in June to 454,000; and for July, 434,000. These figures represent a cumulative total of 2,060,000 cars, of which 1,300,000 represent a reduction in inventory and the remainder new purchases of junks. Inventories of iron and steel scrap on July 31 were 535,000 tons.

• **Rubber Salvage**—In addition to the iron and steel, graveyards in July salvaged 18,697 tons of scrap rubber, and inventories on July 31 showed only 7,943 tons in yards, also a reflection of the 60-day turnover rule. Last year average inventories were turned over every seven months. Wreckers have been known to hold automobiles for as long as 10 years before completely dismantling them. The crushing of an old

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★ FOR VICTORY—BUY UNITED STATES WAR BONDS AND STAMPS ★

auto down to the size of a 50¢ cake of ice is a real action story. After a jalopy arrives at the wrecking yard, the doors are cut off with a torch. Then a sledge hammer takes off fenders, while the torch cuts body-bolts. The body is then lifted off the chassis and burned to rid it of wood and upholstery.

• **A Neat Little Bale**—The motor and other heavy parts are cut free by the torch. Giant shears slice heavy steel parts like scissors cutting paper. Then the body is squeezed together by the jaws of a hydraulic press into a neat little bale, which is lifted by a magnet and dumped into a freight car.

HOLC's Fadeout

Patriotism and prosperity are liquidating once-gigantic agency born of depression. Last state office will close soon.

One of the few government bureaus whose life is being shortened by the war is the Home Owners' Loan Corp. Technically, HOLC virtually stopped lending money in 1936, but it was still a big fellow until the war came along. Now it has only 5,200 employees as against 22,000 in its heyday. Three of its 11 regional offices are closed. And end of this month the last remaining state office (in Pennsylvania) will take down its shingle.

• **Payments Pour In**—War prosperity, of course, is dimming the prominence of the onetime mammoth depression bureau (BW—May 21 '38, p22). Furthermore, after Pearl Harbor debtors began writing letters saying, "The Government helped me when I was broke, and

I thought it needed the money now . . ." Thus between patriotism and prosperity, overpayments started pouring in. By June, income in excess of billings was running at the rate of \$9,500,000 a month.

Nobody knows whether HOLC, when one day it finally closes its ledgers, will wind up in the black or in the red.

• **Up to Now**—Here is the record of HOLC activities to date:

Total No. Loans...	1,018,000
Loans Paid Up....	161,000
Loans Outstanding...	674,000
Properties Taken	
Over and Sold...	156,000
Properties Taken	
Over but Not Sold	35,000
	1,026,000*

* The discrepancy of 8,000 in the two totals is due mainly to the classification of certain types of loans in two categories.

On the 156,000 pieces of property the HOLC had to sell because of foreclosure, it lost \$190,000,000. By way of counterbalance, the agency now has \$70,000,000 in reserves. Naturally, if payments continue to run high, and foreclosures drop away to almost nothing, the reserves will rise handsomely.

• **Outstanding**—Still outstanding is \$1-\$11,850,000. Additionally, \$364,000,000 is due from "vendee accounts"—money owed by the purchasers of foreclosed properties. And the 35,000 properties currently for sale have a book value of \$262,000,000.

HOLC was launched in 1933 to bail out frozen home mortgages, thus helping both the homeowner and the financial institutions to whom he was in hock. Up to 1936 it loaned \$3,093,000,000 (of which \$1,338,000,000 is collected). Then it ceased making any new loans, but did give its original debtors a bit more assistance when they

needed it. Such extra loans (limited to \$500 per debtor) came to \$175,000,000.

• **No Surprise**—Stepped-up payments on all these tremendous outlays has not been an unexpected phenomenon. For HOLC was pretty certain all along that war prosperity would boost payments and that few of its accounts would be hurt by the draft. Debtors are largely in the older age groups, as is evident from the fact that in 1936 the average age of properties bailed out with HOLC money was 12 years.

Something of a headache, however, are the 35,000 unsold properties. About 30,000 of them are located in the Northeast, most of them in areas where defense work is negligible. HOLC is now equipping them to burn coal instead of oil, but this is more by way of complying with national policy than attempting to increase sales.

• **Aiding War Effort**—HOLC has pitched in to help with the war effort. Its appraisers have been loaned to the Army, the Navy, and WPB. Its architects are busy designing war projects. And a \$100,000 presidential grant has enabled HOLC to show homeowners in defense areas how to convert their properties so they can house more workers. This service—mostly technical and architectural advice—is free.

When its last dollar is accounted for, HOLC will probably be no more. Rehabilitation projects of the future will undoubtedly be tied into one centralized government agency.

• **As They Were**—Unaffected, however, by such transitions are two old HOLC colleagues: the Federal Home Loan Bank System (the federal reserve setup for home loan institutions), and the Federal Savings and Loan Insurance Corp. (which protects investors in home financing institutions up to \$5,000).



ARMY'S IGLOOS

Soldiers at an antiaircraft unit near Seattle watch the construction of the latest type of prefabricated plywood



"igloos." Built under contract by Pacific Huts, Inc., the structures have insulated interiors and adjustable ventilation that may be regulated for tropical heat or Arctic cold. In appear-

ance, they are not unlike the old type metal buildings (right) recently visited by General George C. Marshall and Brigadier General W. B. Smith in Iceland.

THE NEWSPAPER'S CASE

★ ★ ★ ★ ★

DO the newspapers have a case against the government on the news front? Definitely, yes.

As an editor I wouldn't hire the government as a reporter because it does a bad job of reporting the biggest story in history to the people through the pages of the American press. And, I wouldn't hire the government as a news service because its stories are too often unreliable and incomplete.

America finds herself embattled today on many major fronts; fronts that cover the seven seas and the six continents. Not the least important of these battlelines is the information front—both military and civilian. Just as we have experienced many defeats, in the arenas of armed warfare, so have we suffered many losses in the sector of news and information.

From Pearl Harbor to the Java Sea, from the Java Sea to Murmansk and from Murmansk to the Aleutians we have failed to utilize the great tonic that the stark realism of bad news can give a determined and united people.

On the civilian front our diffuse, nebulous and conflicting reports of gas rationing, rubber shortages, sugar stocks, oil supplies have left the public groggy and uncertain.

I think we can agree that Americans are willing to go without sugar, gas, rubber or oil if it will win this war. I am sure that Americans would go barefoot in the streets if that would bring victory. But to clothe themselves with such a psychology Americans must be sure that privation is necessary, that it stems from fact and not from the theoretical conclusions of some so-called expert.

In war time the most important asset that any government can have is public confidence. Such public confidence is more than important to a democracy in dire peril such as ours—it is Vital.

Today our government does not have the confidence of the people to the extent essential to all-out victory. It does not have it because the people do not feel that government has been realistic about the facts of this—the people's war for survival.

The government has repeatedly failed properly to report unfavorable war news. Often the first word of disaster has come from enemy broadcasts, which in turn has helped to authenticate potentially dangerous propaganda—and more important it has reflected directly on the reliability of our own government's reports.

Too often such government failures have been attributed to the necessity for military secrecy—too often military secrecy has not justified misleading reports.

No one—be it from the press or the public—wants to give "aid and comfort" to the enemy. No one wants to violate necessary "naval and military security." But, by the same token, public and press alike wonder whether the naval and military establishments are awake to the fact that there is something greater than naval security or military security and that is American Security. American Security—faith in ourselves—faith in our leadership—faith in our government.

No one wants to help the enemy, but none can endorse a policy of silence if it be utilized to give aid and comfort to men responsible for our military or civil failures.

The strangest handling of any major incident of the

present war has been that involving the Aleutian Islands. Shortly after the attack on Dutch Harbor, the Japanese announced occupation of some of the Aleutians. The claim was promptly denied by our own naval headquarters. Two days later we officially admitted landings at Attu and Kiska, but said they had been small. The New York Times said in its war summary:

"Naval authorities saw no strategic importance in the Japanese incursion." High government spokesmen dismissed the Dutch Harbor incident as retaliation for Tokyo bombings.

The New York Times, speaking editorially, said:

"The Aleutian Islands adventure has been one of the most singular episodes of the war; first, because of the manner in which our own naval authorities belittled the attack; second, because of the remarkable delay in publishing news of the whole affair—an adequate report of events occurring in the second week of June was not made public by the navy department until the third week of July."

In connection with the Aleutian occupation, while Washington remained grimly silent, Delegate Dimond of Alaska and John W. Fletcher, Mayor of Onalaska, stated that some 25,000 Japs were in the Aleutians; recently the navy admitted 10,000, but did so as though it was a matter of no importance.

Certainly the strange method of reporting the occupation of the Aleutian Islands ill-conditioned the minds of the American public for the serious potentialities that such an occupation might hold, and with equal certainty we can believe that such a procedure helped to build up a believing audience for Japanese short-wave broadcasts to America and to the world. Actually, the long, dry spell of Aleutian facts from the initial phases until the Wheeler stories broke made our public dependent on Tokyo for news from the Aleutians.

Elmer Davis recently said in effect: "America must deal with the truth." Quoting Mr. Davis again: "This is a people's war and to win it the people should know as much about it as they can. The view of this office is that everything should be printed if it does not endanger the national security."

There is no basis, in fact, for the idea that America cannot take bad news; nor should there be any attempt to sweeten the dose by holding it until there can be good news to coat it. In this international debacle America has a responsibility to truth which neither government nor press should lightly put aside.

In closing I would like to quote the Hon. William O. Douglas, Associate Justice of the United States Supreme Court, who recently said:

"We are fighting a people's war, and therefore we need a free, a vigilant and a well-informed press to help lead us. Now that the nation is mobilized, let us hope that the entire press will report the sober and grim facts of what we must fight and how we must fight. And until our martyrs are avenged, our allies supported, and our army returned to peaceful employment, there is no room for hints that the fight is about over. Every man, woman and child in America will know when the fighting is at last behind us."

Because The Oregonian of Portland, Ore.,

believes that the functions of a newspaper in a Democracy are: *one*, to print the news; *two*, comment adequately thereon without fear or favor; *three*, never allow these two to mingle . . . we reprint this message given over Town Hall of the Air, Seattle, Washington, August 6, 1942, by Palmer Hoyt, Publisher of *The Oregonian*.

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★ ★

MEN AT MACHINES



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There is a complete, new catalog on G-E Fluorescent Accessories. It has many important facts to help you get better lighting. You can get a copy by writing to Section G-1024-102, Appliance and Merchandise Department, General Electric Company, Bridgeport, Connecticut.

GENERAL ELECTRIC



PROP-LESS FIRE BOAT

Neither propellers nor paddle wheels drive the new jet-propulsion fire boat now being tested by the Coast Guard on the Potomac River. Instead, four 150-horsepower engines push it to a

fire by pumping 800 gallons of water per minute each through underwater jets. The same engines fight the fire by pumping the same amounts of water through deck nozzles. Advantages claimed: No props to foul on floating debris; engines do a dual job.

Left-hand Sockets

Anti-bulb-snatching device in Pittsburgh defense housing project backfires. Other bungles worry tenants.

In an age when bulb snatching has achieved the proportions of a household vice, the technique of screwing a light bulb into a socket is scarcely an art. Yet war plant workers moving into the U. S. Housing Authority's 1,001-unit Glen Hazel defense housing project in Pittsburgh found themselves baffled repeatedly in the attempt.

• **No Bulbs**—It cost a few shocks to exploring fingers to learn that the bulb sockets in Glen Hazel utility rooms were threaded for left-hand bulbs—as distinguished from orthodox bulbs which screw into the socket with a twist to the right. Tenants stoically canvassed the neighborhood for left-hand bulbs, a device intended to defy bulb snatching in public hallways, only to discover that WPB had proscribed their manufacture for the duration.

• **Windows Inaccessible**—Only one of a number of construction bungles was the unorthodox lighting equipment. Floors buckled, foundations sagged, sidewalks heaved, and mud was washed from adjacent hillsides over fresh lawns and under the cellarless houses. Housewives had to climb ladders or chairs to hang kitchen utensils on pothooks suspended from the ceiling. Some second-floor windows couldn't be opened far

enough to permit washing on the outside and had to be reached by ladder. A woman was trapped in a room because she couldn't budge a warped door.

Outdoors it was more of the same. Some of the dwelling units were built above an abandoned coal mine—safe enough procedure ordinarily, but a second-guess mistake at Glen Hazel. Two of the completed homes had to be torn down and 40 feet of sidewalk had to be replaced because of cave-ins. Roof gutters and downspouts had been omitted, heightening the problem of storm drainage to a point where water gushing under the houses rose to the prefabricated oak flooring and buckled it.

• **Repairs Under Way**—The Pittsburgh Housing Authority, which inherited the \$4,800,000 project from the Federal Works Agency early this year in a general amalgamation of all dwelling projects under USHA, blamed the blunders on false economy, absentee supervision, and rapid construction, and ordered them corrected. Repairs can be made down to the last wrong-way socket within the \$4,800 cost originally set.

TENANT FRUSTRATION

Dorothy Clemens rented a small shop on Catalina Island, off Los Angeles. War made Catalina a closed military reservation. Her landlord sued for full payment of rent on her lease. Judge Lucius Green, in the municipal court, ruled last week that she was "commercially frustrated," indicated that relief may be given many small business people suffering in the same way.

They can't let it happen HERE

For modern field radio telephones, the Signal Corps depends on unfailing wires and cables of copper for the efficient operation of their communication system. Wire failure would be serious.



Just as important as the part they play in any individual instrument, is the part played by electrical wires and cables in the plants that are producing radio equipment. For wire failure here would interrupt production itself.

ELECTRICAL WIRES AND CABLES OF COPPER ARE THE LIFE LINES OF OUR NATION

Anaconda Wire & Cable is devoting its entire production wholeheartedly to our country's war effort . . . turning out the most modern types of copper wire and cable, engineered to fit the job . . . and doing it *seven days a week!* Meanwhile Anaconda research carries on, the laboratories keeping pace with the production effort. The benefits of this intensive program of research are

for our country's war effort. But when the emergency is ended, it will be available to industry everywhere.

MINUTE WIRES FOR MIGHTY JOBS

Thin strands of research-developed Anaconda magnet wire make coils for huge tanks as well as 14 pound field radios. If you have a magnet wire or coil problem, send it along. Anaconda can help

with production facilities and engineering service, now!

ANACONDA WIRE & CABLE COMPANY
Subsidiary of Anaconda Copper Mining Company
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Sales Offices in Principal Cities



Two marks of achievement — The cherished Navy "E" (awarded to two of our plants) for achievement in production...the Anaconda trade-mark for achievement in quality.

ANACONDA WIRE & CABLE COMPANY

WAR BUSINESS CHECKLIST

The Week's Orders

A digest of new federal rules and regulations affecting priorities, price control, and transportation.

• **Fats and Oils**—To permit building of a reserve supply, fats and oils used in the manufacture of edible finished products (shortening, mayonnaise, salad dressing, etc.) are limited to 90% of the amount used, by quarters, of the average of the corresponding quarters of 1940 and 1941 (BW—Sep. 5'42, p93). Exception is margarine which is given 110%. Paints, varnish, and lacquer rate 80%; linoleum, oilcloth, oil, or oleo resinous coated fabrics and pyroxolin coated fabrics 70%; and printing inks 90%. Order is retroactive to Sept. 1. (Revision of M-71.)

Castor oil has been placed under complete allocation control (BW—Apr. 4'42, p30), beginning Nov. 1. Exceptions are made for users of 35 lb. or less in any month, for pressing, bleaching, alkali refining, and medicinal purposes. (M-235.)

Dollars and cents ceilings which approximate individual maximums set under previous schedules have been established for various grades and qualities of soybean oil, corn oil, and peanut oil. (Amendment 7 to Revised Price Schedule 53.)

• **Food**—Following up the wartime meat program established earlier this month (BW—Sep. 5'42, p14), the War Production Board has limited total packer deliveries of meat for civilian consumption. Such deliveries for the last quarter of this year are cut to the following percentages of total packer deliveries during the final quarter of 1941: beef and veal, 80%; lamb and mutton, 95%; pork, 75%.

OPA has delegated to regional offices authority to correct local milk shortages when they are caused by abnormal pricing differentials between neighboring small localities obtaining supplies from one production area. (Amendment 34 to Supplementary Regulation 14.)

A new formula for determining packers' maximum prices for the 1942 pack of fruit preserves, jams, and jellies parallels those for canned and frozen vegetables, fruits, and berries (BW—Sep. 5 '42, p40). (Regulation 226.)

Imported spice quotas have been revised to provide packers, wholesalers, and manufacturers with a larger or smaller supply of various spices depending on changes in the supply since

May 8 when the original order was issued. (Amendment to M-127; M-127-b.)

Ceilings on canned shrimp in both wet and dry pack have been lifted by 17% to 27% per can at the packer level in conformity with increased weight ordered under the Pure Food Act. (Amendment 28 to Supplementary Regulation 14, GMPR.)

Six dried fruits—apricots, peaches, pears, prunes, figs, and raisins—have been placed under price ceilings at the packer level. A forthcoming regulation will permit wholesale and retail distributors to adjust their maximum prices. (Regulation 227.)

Canners of fruit cocktail and fruit for salad may add the increased cost of pineapple and maraschino cherries in computing ceiling prices. (Amendment 2 to Regulation 185.)

Packers and warehousemen of apples and pears are to be permitted conditionally to increase current charges for services. (Amendment 29 to Supplementary Regulation 14.)

• **Wine and Brandy**—California growers of grapes crushed for wine and brandy will be allowed higher prices than last year, but increases may not exceed the \$8.30 per ton.

• **Sugar**—Under new rules milk processors will be allotted sugar for condensing milk only if milk so processed cannot be preserved by manufacture into other essential food products such as butter, cheese, and milk powder. Previous allotment was 70% of last year's use. (Amendment 14 to Rationing Order 3.)

• **Heating Equipment**—Gas unit heaters, adaptable for economical heating of war plants, have been removed from production limitations under WPB order curtailing manufacture of domestic space heaters using fuel oil and gas. (Amendment 1 to L-173.)

• **Cordage**—WPB has approved a program for the planting of 300,000 acres of hemp for fiber and construction of 71 mills for processing it into line and tow fiber for the manufacture of rope and twine. Control over purchase and planting of hemp seed is vested in the Department of Agriculture. (Amendment to M-82.)

• **Transportation**—A new priorities schedule of tank car uses issued by WPB gives the Office of Defense Transportation a specific mandate to distribute the nation's 143,000 tank cars on a basis of first-needs first. Transportation of war-essential chemicals and

vegetable fats and oils will be given preference in allocation of cars formerly used almost entirely for moving petroleum (BW—Jul. 11'42, p81). (Certification of Necessity for Priority Action 1.)

• **Tires**—Passenger car tire quotas (BW—Sep. 15'42, p69) for October, new and recapped together, are about 4% less than the allotment for September, as compared with a seasonal decline of 15% in replacement sales in preceding years. Decline in total quota for trucks follows the seasonal pattern more closely, being 12% below the last month's level as compared with a replacement sale decline of 13% in previous years.

Applications for Certificates of War Necessity will provide ODT with a complete inventory of all tires now on wheels of the country's more than 5,000,000 nonmilitary vehicles or held for use of such vehicles. Operators must report number and condition of all tires in their possession by sizes or size groups, including both new and used tires. (General Order ODT 21.)

All tire sellers must file Sept. 30 inventory reports of serviceable tires and tubes before Oct. 15. (Revised Tire Rationing Regulations.)

Dental surgeons, itinerant dentists, and midwives who must drive cars in performing their work have been included in the list of persons eligible for tires and tubes under the rationing regulations. (Amendment 29 to Revised Tire Rationing Regulations.)

• **Machine Tools**—Compulsory and automatic licensing has been imposed by OPA upon all dealers selling used machine tools or extras, or second-hand machines or parts. Effective from Sept. 26 the licensing system gives OPA an enforcement weapon held necessary because of "the vital role that used machinery plays in the war program." Suspension of a dealer's license may follow any violation of Supplementary Order No. 20 or of any applicable price schedule. Dealers are required to register with OPA on or before Nov. 2 by filling out Form No. SO20:3. (Supplementary Order 20.)

• **Chemicals**—The copper chemicals order has been revised to permit farmers to obtain these materials for soil treatment, insecticides, and fungicides without filing PD-600 forms. Under the revision the buyer merely certifies in writing that chemicals will be used solely in cultivation of agricultural crops. (Amendment 1 to M-227.)

• **Production Requirements Plan**—To prevent stoppages or slowdowns in essential production that might arise from lack of small amounts of critical materials, WPB has authorized regional of-



TO KEEP THE BATTLE MACHINES SLUGGING

Harvester Men Form Maintenance Battalion to Serve the Battle Line

FIGHTING MACHINES, like soldiers, suffer battle casualties. Tanks, trucks, tractors and guns immobilized in combat are useless until repaired.

The men who repair the wounded machines in swiftly-moving armored warfare may tip the scale to victory. Maintenance in the wake of battle calls for soldiers who can grind a valve or handle a tough welding job—men with whom mechanics is second nature.

Army Ordnance, in its quest for men to operate its mobile front-line machine shops, came to International Harvester and suggested the formation of a battalion of mechanical specialists from among Harvester's employees and dealers. Har-

vester tackled the recruiting job and assumed the expense. Within two weeks the enlistment quota was passed. Now this new maintenance battalion is part of another armored division.

From Harvester factories and service stations, and dealers' shops all over the United States, came mechanics skilled in the building and servicing of machines. They volunteered eagerly to go to the front lines to keep the combat equipment on the field of action.

They will serve with the first such battalion formed from the manpower of a single company. Harvester takes the greatest pride in the speed and enthusiasm with which these hundreds of men

volunteered; and in the aptitude of the men now in field training, reported to us by the regular Army officers in command. They are worthy comrades of the 5000 Harvester men who preceded them into military service.

American mechanics are the world's best. They come from the factories, shops and service stations of America—free men—builders of a free land. The Army needs 100,000 more of these men, to be enlisted in many similar maintenance units. Their skills are among our greatest assets in keeping the battle machines slugging for Victory.

INTERNATIONAL HARVESTER COMPANY
180 North Michigan Ave., Chicago, Illinois

INTERNATIONAL HARVESTER

fices to assign high preference ratings for the following specified materials: aluminum, brass, refined copper, lead, nickel, pig iron, steel (except plate), zinc, cadmium, ferrochrome, cobalt, cork, formaldehyde, molybdenum, rubber, tantalum ore, titanium ores, tin, tungsten, and vanadium.



• **Lumber**—Prices prevailing Oct. 1-15, 1941, have been set as ceiling levels for northern hardwood lumber (Maximum Price Regulation 223) and northern softwood lumber (Maximum Price Regulation 222). The new regulations, effective Sept. 23, contain dollar-and-cent prices for nearly all standard and near-standard grades. Only shipments originating at the mill are affected. Sales from stocks in distribution yards remain under GMPR.

• **Woolen Blankets**—OPA has set a ceiling on certain South American woolen blankets and piece goods. (Order 1 under Section 1499.3-c GMPR.)

MARKETING

Supers Carry On

Despite curbs on driving, these marketers are confident, though admitting that rationing of food will reduce sales.

With spades poised, volunteer grave diggers have been waiting ever since the start of rubber rationing to bury America's depression-born supermarket industry (BW-Aug. 29 '42, p46). This big league variety of self-service selling had grown fat on a markup which would leave any other merchandiser 10% in the red. But its start had been in such unhandy spots as closed factories and riverfront warehouses. And what housewife today would wear out precious tires driving miles and miles to save even \$1.50 on the week's grocery bill?

• **Smiles Persist**—Judging from the smiles of the merchants attending this week's St. Louis convention of the Super Space Market Institute and from their statistics showing store and industry sales up for 1942, a random visitor might conclude that they have no wartime problems, that everything is jake-or better.

An old hand at their conventions would recall, however, that the supermarket operators have always been grade A optimists, and he might wonder whether the facts wholly justify their aggressive happiness.

• **To Central Trading Areas**—Part of the prevalent cheer apparently is due to the moving of the typical supermarket away from the country and suburbs. Super Space Market, merchandising trade paper, asserts that, of 9,000-odd independent supers, 1,123 are in towns under 10,000 population or in farm areas, 4,415 are in defense areas where business is strongly increasing, and the rest are in the central trading areas of the large cities.

Most of the big city outlets are convenient to public transportation, and owners consequently expect no loss of volume from tire rationing. They do recognize the probability that food rationing will reduce sales.

• **Customers' Intentions**—The trade paper also cites results of a questionnaire among customers of an important supermarket organization in Chicago. Asked if they would continue to purchase their food supplies from this firm's markets even if their tires had worn out, 93% answered in the affirmative.

Store operators say that supermarket customers are now making fewer trips per week, but that the average sale is much higher than in 1941. Parking lots

FORGING SHELLS

to closer dimensions

Shells can be forged to closer dimensions and more efficiently when die lubricants contain "dag" colloidal graphite.

1. Dies and mandrels last longer.
2. Automotive lubricators can be used.
3. Spray nozzles will not clog.
4. forgings are produced with a better finish and to closer dimensions.

The interior finish of a shell forged from dies lubricated with "dag" colloidal graphite requires little or no machining.

Write for bulletin No. 230 A

ACHESON COLLOIDS CORPORATION
PORT HURON MICHIGAN

The graphite in
"dag" products is
made in U. S. A.



"dag" is a
registered trade mark
of A. C. C.

HERE IS INDUSTRY'S ANSWER - TO THE *Gilmer* NATIONAL POWER-RECOVERY PLAN

"To say the least, the program which your Company has inaugurated towards the objective of conserving power in industry is intriguing and most timely." Motor Div., General Electric Company



"We extend our congratulations on your National Power-Recovery Plan which is so well explained in the booklet." Johnson & Johnson

"... want to congratulate you upon your 'National Power-Recovery Plan' and its method of presentation" Leeds & Northrup Company

Typifying the reaction to the Gilmer National Power-Recovery Plan, the above comments give positive proof that Industry is awake to the danger of a power shortage, and recognizes the Plan as a practical stitch-in-time.

Approved by the WPB, the Power-Recovery Plan is offered absolutely free to industry, as Gilmer's contribution to the war effort. The "know-how" of leading power engineers has been incorporated in the Plan, and you'll find a wealth of technical information on each of the power services—Electricity, Steam, Mechanical Transmission, Compressed Air, Water, Refrigeration, Boilers, Prime Movers.

Enlist YOUR plant in this vital battle against power waste. And don't wait until power runs short . . . act NOW. Just send in the coupon, and the Plan will come to you promptly . . . all contained in one convenient booklet.



L. H. GILMER CO., Tacony, Philadelphia, Pa.

Gentlemen:

Please send us, without cost or obligation, a copy of the National Power-Recovery Plan, marked for the attention of:

NAME _____

FIRM _____

ADDRESS _____



L. H. GILMER COMPANY TACONY, PHILADELPHIA, PA.

are sparsely occupied from Monday through Thursday, but store traffic has not shrunk proportionately, because shoppers are coming five to the car, bringing new customers as ballast.

• **More Men Are Shopping**—Recent checks of shoppers show about 40% are men, a considerable increase over previous surveys. Apparent reason: When Pa goes to work, the little woman gives him a grocery list.

Operators with stores on the periphery of a large city or out on the highway are already feeling the bite of customers' saving mileage. Those who are outside the gas-ration states expect the trend to catch them by Thanksgiving.

But the supermarket owner need not await his fate like a duck in a shooting gallery. Desirable buildings, particularly automobile showrooms, are plentiful in most cities. Even though he may not be able to afford new fixtures, an operator can move those he already owns.

• **Equipment Is Scarce**—Actually, equipment to outfit a brand-new super can be obtained in a few instances. If the operator can find a munitions-boomed town lacking in adequate food stores, he stands a good chance of getting the nod as an essential business.

Institute officials say that supers were opening at the rate of 100 a month during 1941 and early 1942. They estimate that openings now have slowed down by 10 to 25 a month.

Membership in the institute is solely for independents. These are defined liberally as anyone not a part of a big corporate chain such as Safeway, Kroger, and A. & P.

• **A Choice of Figures**—The boys accept 10,000 as the total number of supers and 9,000 as the total of independents. Put into percentages, however, the institute accepts a ratio of independent to chain units of 60-40. The two sets of figures, if they were to be reconciled, would indicate that the total number of supers should be revised upward to 15,000 or that the number of independents should be reduced to 6,000, with the chains owning the remaining 4,000 of the presumed 10,000. Take your choice.

Estimated total volume of the industry in 1941 was \$3,000,000,000. Of this, the independents claim \$1,750,000,000 to \$2,000,000,000. They cut the chains in for \$1,250,000,000 or maybe less. If food rationing doesn't interfere, super operators expect that 1942 sales will be still higher.

• **Nongrocery Lines**—That smart merchants fear serious loss in sales because of rationing was shown by eager crowds at booths offering nongrocery lines. Anchor Hocking Glass Corp., for instance, displayed tumblers, pitchers, and other housewares. Supers are adding high-profit specialty departments, including flowers and plants. Drug sections are old hat in grocery supers.

Corridor conversations of the supermarketers, as well as convention speeches, pointed to labor shortages that are already pinching. Hitherto predominantly male in personnel, the supers are swinging to women for such jobs as prepackaging, checking, and even shelving.

• **More Self-Service**—Another manifestation of the labor situation comes in departments where, until recently, counter service was considered essential; now they are going self-service. Pointing in the same direction was the display of Hussman refrigerating fixtures, one of the largest at the convention. This exhibit featured a line to permit complete self-service in dairy products, perishable vegetables, and meats.

Bemis Brothers Bag Co. and Chase Bag Co. drew many visitors with show-

ings of mesh and heavy paper bags for prepacking fruits and vegetables. Schenley and other distillers showed liquor departments for 100% self-service.

Less Coal-Toting

Chicago dealers pool their facilities, find effective ways of cutting down delivery miles without giving up customers.

Tire-rationing authorities at Chicago last week announced a method by which coal dealers are saving on delivery equipment. The news story made the Chicago Coal Merchants' Assn. less than happy, since customers are now certain



STATE STREET SCENE

State St., Chicago's main stem, and adjacent Dearborn St. have been torn up ever since subway construction got going, way back when. Now subway service is promised within six months, and the surface mess (above, looking southward from Lake St.) is being cleared away following relocation of water, sewer, gas, power, and tele-

phone lines. Repaving of State will be completed this month; Dearborn should be ready by Christmas. Northward from Van Buren St., the new State St. pavement (below) has progressed halfway up the Loop, bringing into clear view the subway entrances (now plastered with recruiting signs) which are in midblock, contrasting with the New York custom of placing them at street corners.



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Springing Up Like MUSHROOMS... with the aid of... Dispersion

CEMENT DISPERSION — outstanding development in concrete technology—has been a primary factor in the record construction speed of great ordnance depots and other vital war projects.

Producing concrete of unusual durability and strength . . . insuring earlier use of projects . . . reducing the cost of construction—these are some of the reasons why Cement Dispersion has been used in millions of cubic yards of concrete since its discovery in 1932.

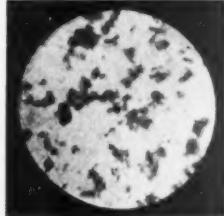
Modern developments in rubber, steel, plastics and other vital materials have also resulted from specialized applications of the principle of dispersion. Now the use of a specific dispersing agent for cement (lignin derivative marketed as Pozzolith) measurably increases the efficiency of all concrete.

Write for technical papers "Economics of Cement Dispersion" (for mass concrete) and "Cement Dispersion and Air Entrainment" (for runways and pavement).

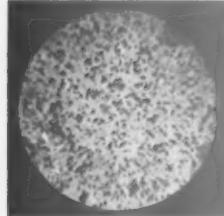
THE MASTER BUILDERS COMPANY
CLEVELAND, OHIO TORONTO, ONTARIO

Seemingly overnight this woodland was transformed into a mammoth fungous-like bed of ammunition housing "igloos".

HOW CEMENT DISPERSION WORKS



Cement suspended in water
UNDISPersed



Cement suspended in water
DISPersed

WITHOUT POZZOLITH

In a normal concrete mix, cement particles tend to bunch together, thereby (1) limiting hydration and (2) trapping water within the cement clumps. (See photomicrograph above).

Cement Dispersion drives these particles apart and (1) exposes their entire surface area to hydration, at the same time (2) making the water entrapped in the clumps available for lubrication of the mix. (See photomicrograph above).

•
Cement Dispersion (Pozzolith) produces the following results in concrete: greater strength, workability, placeability, watertightness, durability and lower costs.



MASTER BUILDERS

A new flag flies at Hammermill



"**E**VERY man and woman at Hammermill is honored that our company has earned the coveted Army-Navy Production Award. Honored that our 'know how' in making and delivering paper is helping America in its war effort. Each of us is pledged to look upon the 'E' badge that we wear and the 'E' flag that we fly not only as a reward for the past but as a challenge and an inspiration for the future."

**HAMMERMILL
BOND**

**HAMMERMILL
MIMEO-BOND**

**HAMMERMILL
DUPLICATOR PAPER**

**Hammermill
Bristol**

Hammermill Paper Co.
Bristol, Pennsylvania

to ask lots of questions that will require hours of needless explaining.

• **Pooling Facilities** — Basically, since Aug. 15, the coalyard men have been pooling their facilities whenever this will save a haul.

Commonest device is a straight transfer of small orders. Dealer South, on the south side, has held the trade of Customer A, who moved to the north side. In bygone years, South happily hauled five- or ten-ton loads all the way across town to fill up A's bins.

• **Keeping a Customer**—Forced by Office of Defense Transportation Order No. 6 to reduce mileage 25%, South still does not want to throw A's business away for keeps. So he telephones around until he finds a stock of the required coal at dealer North's, perhaps a mile from A's cellar window. South asks North to make the delivery, billing the coal to South at cost plus a handling charge. South mails his delivery tickets to North for the driver's use when dumping the load.

Smaller in number but more important in tonnage are the big accounts which take several truckloads at a delivery. Here another system is employed. After finding an adequate stock of the specified coal as close as possible to the customer, the originating dealer delivers the first load from his own yard. The rest of the order is delivered by having his truck refill at the close-in yard.

• **95 Miles Saved**—Actual example, from last week: A dealer had to deliver 60 tons to a user 11 miles distant. He found plenty of the right coal less than $1\frac{1}{2}$ miles from the customer. Sending a 10-ton truck, he delivered one load from his own coalpile. Then he delivered five more loads from the yard close at hand. In this way the five shortened deliveries actually saved him 95 miles of hauling.

Less frequent is the full carload order, which is handled by still another technique. Here the distant dealer usually has his carload dumped at whatever yard is closest to his customer. By sending a 10-ton truck with a driver and several laborers, he can deliver a 75-ton carload in less than a working day, thus confining his equipment's long run to a single round trip.

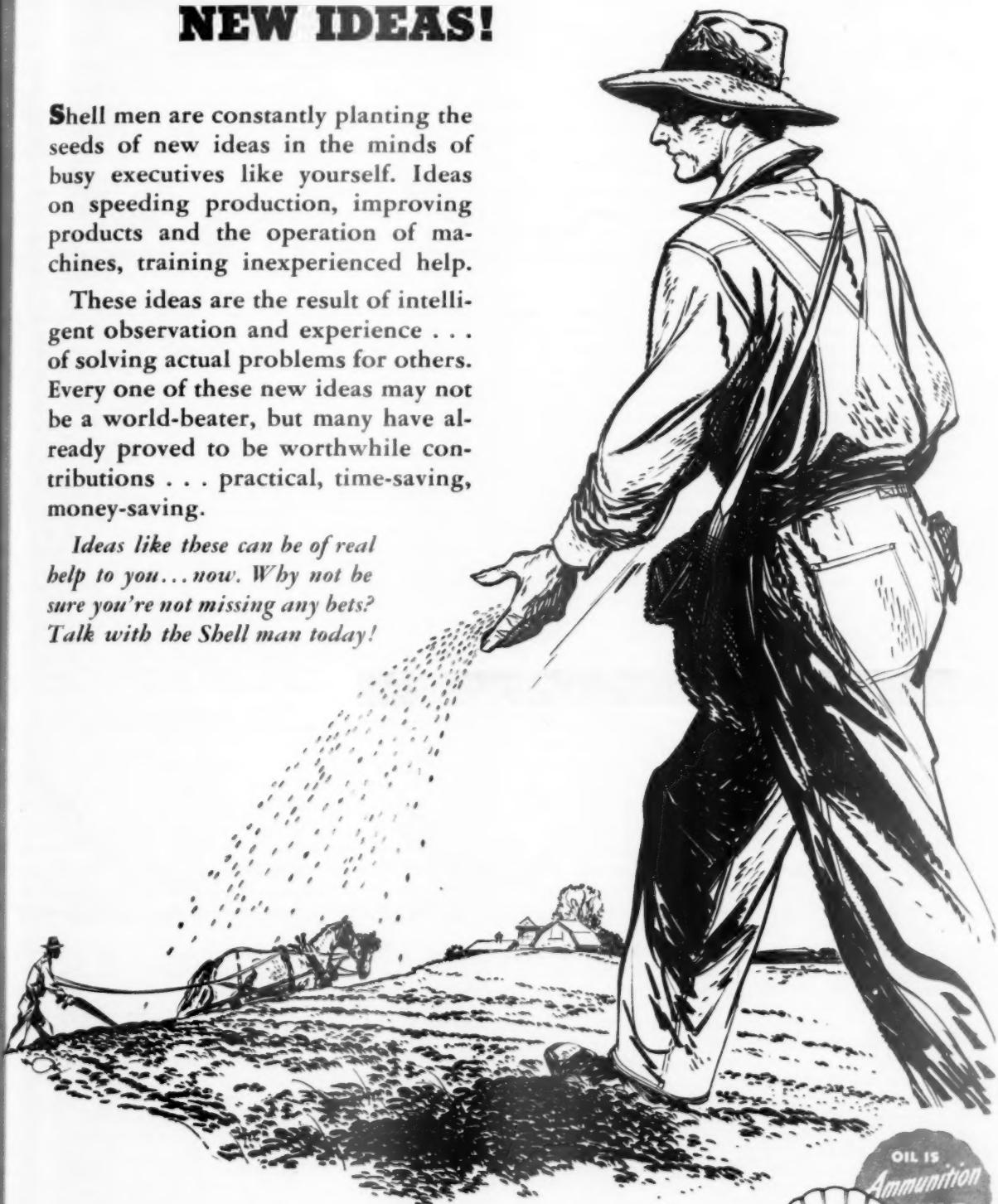
• **Important**—Making these interchange methods work satisfactorily requires that the originating dealer put a good deal of trust in the other coal man's integrity. Implicit in the arrangement, of course, is an understanding that the dealer who is able to ship his coal on the other dealer's order will deliver exactly what is specified, that he will make no passes at grabbing the customer for himself, and that he will reciprocate with similar orders when the opportunity offers. Thus far things have gone smoothly, and there have been no complaints registered.

WE NEVER STOP SOWING NEW IDEAS!

Shell men are constantly planting the seeds of new ideas in the minds of busy executives like yourself. Ideas on speeding production, improving products and the operation of machines, training inexperienced help.

These ideas are the result of intelligent observation and experience . . . of solving actual problems for others. Every one of these new ideas may not be a world-beater, but many have already proved to be worthwhile contributions . . . practical, time-saving, money-saving.

Ideas like these can be of real help to you... now. Why not be sure you're not missing any bets? Talk with the Shell man today!

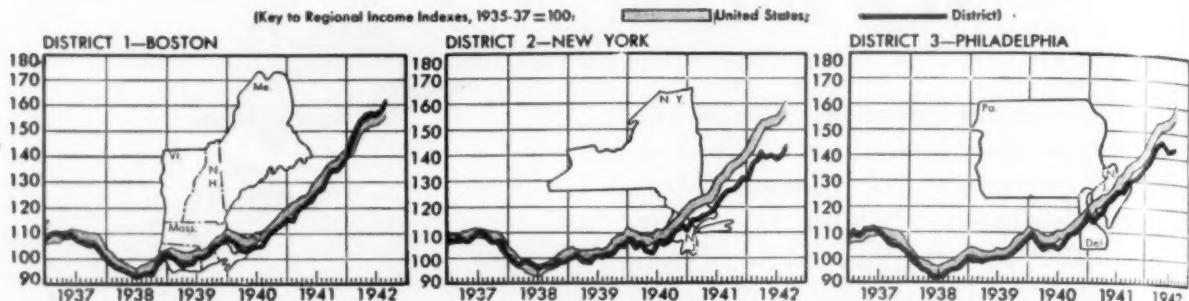


SHELL INDUSTRIAL LUBRICANTS



THE REGIONAL MARKET OUTLOOK

A summary of trends affecting income prospects in the 12 Federal Reserve districts, together with Business Week's Regional Income Indexes for most recent month, last month, and a year ago. (Last month's report: BW—Aug. 29 '42, p. 44)



• Boston—Despite declining employment in light consumer goods lines generally—shoes, woolens, cottons, confectionery, jewelry, etc.—and turnover due to continuing conversion, labor is hard to get in Maine and Connecticut. Not only do agriculture, textiles, and lumbering there find help scarce, but so do even high-paying war lines—as at Portland, where 7,000 shipyard workers are wanted, and at Meriden, where 2,000 metalworkers are in demand.

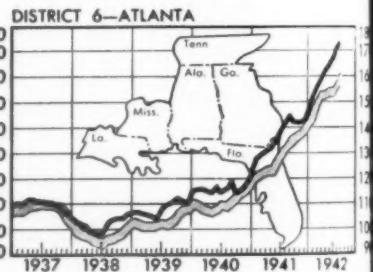
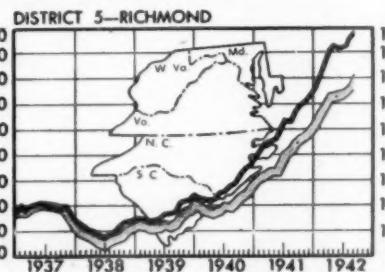
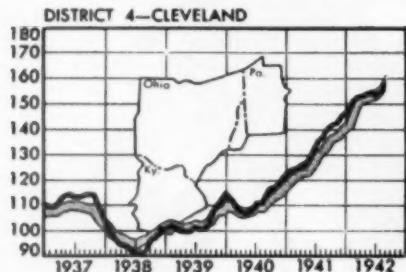
Partly, of course, that's because the less active lines predominate the Rhode Island, eastern Massachusetts, southern New Hampshire, and Vermont, where employment is off from 1941. New shipyards at Hingham and Providence, now hiring, have less employment difficulties. All in all, the spreading war stimulus continues to lift New England income, offsetting weakness in the consumer lines. And established arms areas lead the sales rankings.

• New York—Indicative of New York City's persistent unemployment problem is the stir created by Kaiser Co. hiring for Pacific shipyards (page 74). Although the materials situation in apparel has not yet become acute, some lines have been pinched; and despite great hopes, war orders are still only trickling through, albeit in increased volume. So employment hasn't moved greatly one way or the other.

Altogether, because of somber city prospects, a relative lack of military projects, and below-average farm income advances in rural New York State, district income lags. But Buffalo, Utica, Schenectady, etc., in upstate New York; Bridgeport, Conn.; Long Island towns; and northern New Jersey war centers around Newark and Jersey City rank among the best in the nation. And migration from New York City to surrounding arms areas continues as new facilities come into operation.

• Philadelphia—General trends in the nation's war program increasingly work to the district's disadvantage. Even in the Philadelphia industrial area—arms hub of the region—employment is tending to flatten. First, continuing declines in such consumer lines as textiles, clothing, paper, and leather partly offset war gains. Now expansion of shipbuilding and ordnance job rolls is approaching fruition ahead of other Reserve districts. Certainly, some towns are still in the upbeat (BW—Aug. 29 '42, p. 44), but others—Scranton, Reading, Trenton—payrolls have been sluggish for some time.

Also, while growth of the armed forces continues to drain labor, creating factor replacement problems, troop training is hardly a district forte, except at a few such "hot spots" as Atlantic City, New Brunswick, and Wrightstown, N. J. And farm income, booming elsewhere, is both a relatively minor and a laggard factor here.



• Cleveland—The northeastern corner of Ohio, centering about this city, still figures to register sharpest employment gains in the district. Meanwhile, new plant awards are trickling through. Toledo has more aircraft-supply work; Pittsburgh may get butadiene; and Akron expects to need more rubber reclaiming and fabricating capacity later. To get workers, the major centers, including active Cincinnati, tend to draw upon nearby smaller towns, and upon less-active eastern Kentucky and southeastern Ohio.

In addition, labor turnover is increasing in short-work-week lines—rubber and coal because of union strictures, in steel because of the three-shift operation. Workers leave to get more hours and pay. Other lines—stoves, bicycles, farm implements—face continuing conversion problems. All this, together with the drift of farm labor to industry—despite good 1942 receipts—reinforces migration from small towns.

• Richmond—Soaring payrolls at Baltimore, Washington, and Hampton Roads—at all of which housing shortages are mounting—and boosts in cotton and tobacco crops in the Carolinas (BW—Aug. 29 '42, p. 44) chiefly account for accelerating district income. Elsewhere—except for "hot spots" like Charlestown, W. Va., Wilmington, N. C., Charleston, S. C.—industrial activity holds steady, and farm prospects are just "fair." But military awards, as now at Williamsburg, Va., have been important all along the coastal plain.

Thus, in western Maryland and Virginia, Hagerstown, Cumberland, Radford, and Pulaski are the outstanding arms towns. Rayon is big at Waynesboro, Front Royal, Covington, Martinsville, with textiles, furniture, and paper the other chief industries. Clifton Forge and Roanoke are rail towns, and Martinsburg, W. Va., and Harrisonburg farm centers.

• Atlanta—Farmers in this southern region are already unleashing pursestrings as hope for bumper cotton yields come nearer realization. Now, as Congress moves to boost loan prices, even larger cash receipts are in prospect.

Rural territories may reward avid market cultivation even better than urban. For much of the lift in city potentials has derived solely from soldier spending—which this district commands a huge share. Outside shipbuilding towns on the coast—munitions centers in northern Alabama, aluminum and aircraft plants in Tennessee and a few other arms points, industrial areas have lagged behind most such in the nation. Payrolls have depended on textile, lumber, oil, and other stable lines. Nonetheless, income is up more than average in the over-all. Indicative is the sharp rise in income-tax collections in this customarily low per-capita income region.

Regional Income Indexes (August figures preliminary; July, revised)

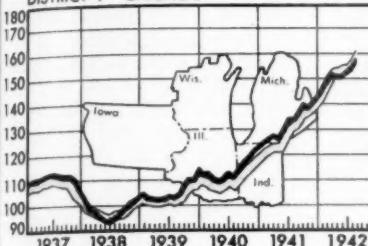
District	August	July	August, 1941	District	August	July	August, 1941
United States	161.5	158.2	136.1	United States	161.5	158.2	136.1
District 1—Boston	162.2	159.2	132.0	District 7—Chicago	157.8	154.9	137.5
District 2—New York	143.8	140.6	126.9	District 8—St. Louis	171.5	167.4	138.1
District 3—Philadelphia	144.2	143.3	129.9	District 9—Minneapolis	159.1	157.0	132.9
District 4—Cleveland	159.6	156.1	140.6	District 10—Kansas City	159.4	153.5	123.8
District 5—Richmond	178.6	175.8	147.5	District 11—Dallas	177.9	171.4	141.6
District 6—Atlanta	174.1	171.7	145.2	District 12—San Francisco	185.7	182.0	146.1

(Key to Regional Income Indexes, 1935-37 = 100:

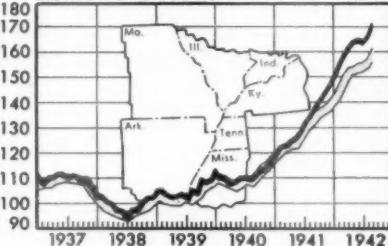
United States;

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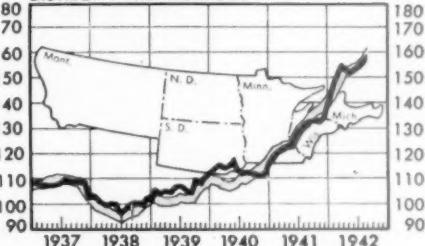
DISTRICT 7—CHICAGO



DISTRICT 8—ST. LOUIS



DISTRICT 9—MINNEAPOLIS



• Chicago—With acceleration in conversion of existing plants and construction of new, payrolls are on the move in this region. Auto industry job rolls, for instance, are above peacetime peaks. Indeed, with so much expansion to come, labor shortages now loom bigger in all industrial areas.

Chicago itself is really beginning to hum with its new aircraft engine and other arms factories; Detroit is on the verge of unprecedented boom; and Milwaukee's arms facilities are being expanded. Indianapolis and Ft. Wayne head Indiana's upsurge. In downstate Illinois, Danville, Springfield, and Rock Island feel effects of new munitions work. Monday night shopping time for war workers is spreading.

Ranking with the top-notch arms markets are hog-raising areas, particularly with prices high and corn yields rich. But Wisconsin dairymen, despite heavy current receipts, are concerned over the growing labor pinch.

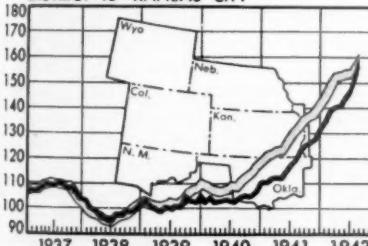
• St. Louis—Crop estimates are up again, cotton by 10% in one month. Corn, hay, and oats harvests now figure to be some 10% bigger than last year, and Arkansas rice 27%, at bumper prices. Only Kentucky burley condition is off. The result is a boon to rural income prospects, particularly in the south. Arkansas returns have been well above average, and Missouri's slightly, with Kentucky laggard.

Industrially, St. Louis and Louisville continue to advance. But whereas in Arkansas booming war towns are numerous—Pine Bluff, El Dorado, Texarkana—small towns with arms plants (like Jacksonville, Ill., Burns City, Ind., Hannibal, Mo., Paducah, Ky.) are few and far between in the north. In others, like Effingham, Ill., and Mt. Vernon, Mo., farm conditions are bolstering. But in many, like Springfield, Mo., activity is steady at best, and some even are losing population to the bigger centers.

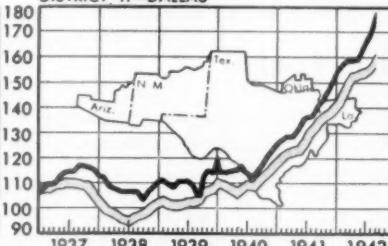
• Twin Cities—Further improvement in wheat and feed crops is lifting rural potentials in this northwestern district. Farm income, except in Montana, is running along with the nation's or above, and autumn receipts now promise to consolidate the 1942 position. Not only have crops registered unlooked-for gains, but Minnesota's dairymen also are thankful for their tardy conversion to cheese-making, now that surpluses have again appeared. Pork and beef producers are cashing in on boosted output, and western pastures are lush.

Industrially, rising ordnance work in Minneapolis-St. Paul, shipbuilding in Duluth, Superior, and iron mining on the northern ranges are outstanding. War orders have helped Red Wing and Eau Claire, but military and arms projects generally have been few. So, for the longer-term, income is vulnerable to any cut in farm output caused by poor weather or a labor lack.

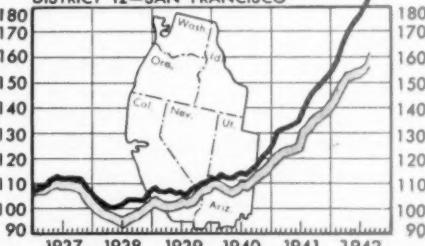
DISTRICT 10—KANSAS CITY



DISTRICT 11—DALLAS



DISTRICT 12—SAN FRANCISCO



• Kansas City—District gains in industrial employment are outstripping the nation's now as new war plants come into operation and construction starts on still others. Centers like Denver, Wichita, the Kansas Cities, Tulsa, and Omaha, benefit. War projects accumulate, too, with air bases going to Brunning, Harvard, McCook, and Fairmont, Neb., Clinton, Okla., and Kansas towns.

Moreover, farm income and prospects for future receipts are up with or ahead of the nation's. A big corn crop particularly is looked for, with recent gains alone coming in value to nearly \$75,000,000. Even more wheat was harvested this year than last. And Oklahoma's cotton is up nearly 25% from 1941. Hogs, beef, milk, eggs, etc.—which account for two-thirds of district receipts—also are bringing rich yields. Altogether income is outrunning the nation's; an additional lift may come, as to all farm regions, from congressional price boosts.

• Dallas—Recent weather has altered prospects somewhat in this essentially agricultural region. Cotton was hit by a surplus of rain along and inland from the coastal plain. But additional moisture put ranges in the western half of the district in excellent shape. Prospects generally are good and farm income gains continue to keep pace with the nation's. Labor is a problem and much cotton will be pulled and stripped instead of picked. Some schools may close temporarily to release children for work. Sharpest pinch comes in areas of heavy arms awards, as in northeastern Texas, Texarkana, Marshall, and Daingerfield.

National gasoline rationing will further curtail oil activity. Hardest hit so far have been low-octane fields around Corpus Christi and Laredo. But industrial expansion, particularly along the Gulf Coast, and military awards—the latest to Dallas and Gatesville—continue heavy.

• San Francisco—Labor stringencies tend to limit income expansion here, so vastly have demands grown. Shipbuilding, followed by aircraft, are the big hirers, drawing workers away from lumber and mining areas. Agriculture has already been hit (BW-Jul.11 '42,p52). Migration continues to the booming nearby coastal arms areas, from the Bakersfield, Fresno, and Sacramento valleys of California, from Eugene, Ore., Yakima, Wash., etc. Such smaller spots as Stockton, Ventura, and Monterey, Calif., are helped by military projects. And in Nevada, not only are Reno and Las Vegas activated by mining, but farm income also is high.

Idaho's agricultural gains over 1941 are running sharpest, but the district generally compares well with the nation (BW-Aug. 29 '42,p45). Fruit canning is now about over, with tomatoes the main crop still to go; salmon packs are off. The Army is still the big buyer.

Stores Hunt Help

Faced with competition of war industry, retailers appeal to those who don't have to work. Age no longer a consideration.

Department store personnel directors have almost forgotten the time when one of their chief problems was to find the most efficient means of segregating applicants and emptying reception rooms of a swarm of job-hunters. Now the problem is to recruit help, any help.

• Self-Service—In many cities like De-

troit (BW-Aug. 22'42, p80), where girl after girl comes up with the cheery refrain, "I can get \$50 a week at the Buick plant," department store executives are beginning to wonder how long they will be able to stave off self-service operations. Hope of getting adequate help for the Christmas rush has already been abandoned.

Even in New York, the city that the war boom forgot (BW-Jul. 18'42, p35), where the general labor shortage has not yet made itself felt acutely, retailers are buying display space instead of relying on mere want ads to muster a Christmas sales force. And in their advertising they are taking their cue from employers in other cities who have learned that their

salvation—if any—lies in appealing women who wouldn't be attracted, regardless of salary, to a powder plant or engine factory, but who might consent to "help out" in a white-collar voca-like clerking in a high-class store.

• To "the Kind of People"—Thus, the week the copy in a blind ad placed by a big New York merchant, was genteelly addressed to "the kind of people who are our customers, who understand the point of view of the people who shop with us."

Washington readers, for example, were treated to a new theme last week—the remember-when-you-wanted-to-play-store? theme. The copy (Julius Goldin & Co.) created a nostalgic image of rainy days in the attic when all the kids in the neighborhood rifled grandmother's trunk for a "sale" with buttons as legal tender.

"Why don't you try it again?" suggests the ad. It even says, please.

• An Open Letter—Wieboldt's, operator of six big department stores in Chicago and adjacent suburbs, bought display space, ten inches on four columns, for "An Open Letter to Thousands of Chicagoland Women Who Do Not Have to Work." The copy announced that the firm "is recruiting a staff of patriotic women" to become members of WESP, Wieboldt's Emergency Service Personnel.

Members of WESP "may work either full time or part time. For six full days work, or equivalent time, you will be paid with a war bond which has a maturity value of \$25. For each bond paid to a WESP member, Wieboldt's will buy for its own investment a bond of like amount. Thus the members of WESP will accomplish three patriotic purposes—(1) add their labors to the total effort of industry; (2) purchase a bond; (3) sell a bond." Response from readers of the one-insertion, one-paper WESP offer was better than expected.

• Standards Change—Personnel directors are reluctant to admit that they are less critical, but they do say that age is no longer a consideration. Older people and youngsters (minimum ages: 16 for men, 18 for women) are being hired, and it is hoped that schools will alter schedules to make more help available.

Even when retailers have wheedled a few prospective clerks around to the employment office they cannot be sure that they will stick. New and old clerks are coming and going at an unprecedented rate as better job opportunities open up or as personal living arrangements are affected by the vicissitudes of the draft. The National Retail Dry Goods Assn. estimates that employment turnover is running 30% to 40% higher than normal. What with the necessity of initiating new clerks into the mysteries of ceiling prices and the rules that govern rationed products, the work of training becomes a nightmare.

ON THE TRAINING FRONT

"It's Operadio Sound...for Action!"



At Pensacola Field

...where split-second efficiency is the rule, commands are issued, individuals located, information secured with **FLEXIFONE** "finger-tip control" intercommunication equipment by **OPERADIO**. On the production front, too, the challenge of war is being met brilliantly by this same **FLEXIFONE** equipment. In your plant, on your desk, the unit shown below will save executive time, get the goods to the men on the firing line faster! Write **Operadio Manufacturing Co., Dept. B-6, St. Charles, Ill.** Export Division: **Operadio, 145 West 45th Street, New York City.**



OPERADIO

Φ SYMBOL OF QUALITY SOUND
COMMUNICATING SYSTEMS

Engineered to embrace all or any combination of these services: VOICE PAGING
INTERCOMMUNICATION • PUBLIC ADDRESS • MUSIC & RADIO • SIGNAL & ALARM

Licensed under U. S. Patents of American Telephone & Telegraph Co. and Western Electric Co., Incorporated

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But we'll buy it back . . . for Uncle Sam!



HOW TO MAKE TYPEWRITERS LAST ... TEN TIPS TO TYPISTS

DO DAILY

1. Brush erasures and dirt on typebars towards front part of machine.
2. Clean type with cloth or brush slightly moistened with cleaning fluid.
3. Move carriage to extreme right, clean carriage rails. Reverse operation.
4. Brush dust from typebars.
5. Always cover machine when not in use.

DO REGULARLY

6. Prevent paper slipping by cleaning rubber rollers with cloth slightly moistened with cleaning fluid.
7. Remove roller and brush out particles of dirt.
8. Save roller by inserting 2 sheets at a time. Use backing sheet over and over to conserve paper.
9. Keep particles from falling into machine by moving carriage to extreme ends when erasing.
10. Change ribbons correctly. Jiggle or tap them lightly. Never force them on shaft.

NEVER OIL YOUR TYPEWRITER . . .
LEAVE OILING TO SERVICEMAN

We are neither making nor selling typewriters,
these days.

But the Army and Navy need over half a million more standard typewriters . . . on ships, in the field, at headquarters. Every report, every command, every requisition . . . here or abroad, aloft or undersea . . . must be typed. And there simply aren't enough machines to go around.

So . . . will you help? As a patriotic contribution, will you sell back every standard typewriter (made since Jan. 1, 1935) that you can possibly spare? Every Smith-Corona branch office is authorized by the Government to buy L C Smith machines at standard 1941 "trade-in" values . . . and your help is urgently invited.

* * *

Meanwhile, the typewriters you *cannot* spare must likewise be kept going full time. Don't wait for breakdowns! Tell our branch or L C Smith dealer to send a service expert around . . . periodically. Let us keep your typewriters going for the duration.

L C SMITH & CORONA TYPEWRITERS INC SYRACUSE N Y

Smith - Corona
OFFICE PORTABLE
Typewriter Service



War production entrusted to us is precision work calling for craftsmanship of the highest order...skill won through many years of making America's finest office and portable typewriters.

PRODUCTION

Reynolds Speedup

From bauxite to finished aluminum aircraft parts sets tempo of new plant. Big saving in scrap handling seen.

Something new is being added to aircraft aluminum production by Reynolds Metals Co. in its self-contained plant "somewhere in Alabama." Bauxite is reduced to alumina, alumina reduced to aluminum, aluminum rolled into sheets, and—here's the brand new addition—aluminum alloy sheets are processed into aircraft parts, precisely true to blueprint, ready to be assembled into finished planes.

• **Where the Savings Come In**—Not only are the familiar costs and delays of interplant handling reduced, Reynolds executives point out that 70 tons of aluminum parts constitute a typical production from 100 tons of sheet. Thus, under ordinary methods, 30 tons of the initial shipment become scrap which must be returned to the aluminum producer for remelting and rerolling.

Reynold's new system saves freight space, sorting, and handling for this 30 tons of scrap as well as the lost time in transit. The company feels pretty proud of the fact that scrap from the parts production is frequently remelted and rerolled within 24 hours, making it almost instantly available for further parts production, speeding up the intricate process of getting planes and more

planes into the air where they can do most good.

• **Tackling More Parts**—Up to this month, the Reynolds Airplane Parts Division is confining its efforts largely to flat parts like panels for airplane skins (punched or drilled and ready for the riveter or welder), and webs for wingribs (contoured to airfoil section and needing only the addition of tops, bottoms, and nose sections). The editors of McGraw-Hill's Aviation, however, have received a tipoff from W. G. Reynolds, general manager, and D. P. Reynolds, assistant manager, that they are negotiating with Anderson Aircraft Co. for the use of the Anderson Forming-by-Drawing machine in the production of a variety of formed parts.

Facilities include a dozen shearing machines, 20 punch presses ranging in size from 30-ton to 1,200-ton capacities, nine routers which also take care of drilling large pieces. Since the plant is fully equipped for the design and fabrication of dies and templates, it is necessary only for the aircraft manufacturer to send along his blueprints and specifications. In a good many instances, the plant has been able to complete blanking dies or router blocks and templates and to get into production within 24 hours of their receipt.

• **Packaging Problems**—All parts are inspected under government supervision before packing and shipment. Meticulous care must be exercised both to insure delivery of perfect parts for immediate assembly and to utilize every available inch of freight space.

Reynolds really expects to go to town



Prefabricated aircraft parts are scrutinized by (left to right) T. A. Lynch, general sales manager of Reynolds Metals, Frohman Anderson, president, Anderson Aircraft, and D. P. Reynolds, asst. mgr., Reynolds' Parts

when four or five manufacturers, working on the same plane, will pool their orders on identical parts, permitting operatives to show what they can do on genuinely all-out production.

FWA's ABC's

How the government expects to protect its buildings against air raids may provide a few hints for business men.

Business men who have to decide how to safeguard their buildings and employees from air raids will be able, within a week or two, to obtain copies of the official code which tells how the federal government does it.

• **The A, B, and C of It**—Prepared by the Federal Works Agency, the code provides for three stages of protection, A, B, and C. The stage used for a particular building depends upon the importance of the work carried on in it and the degree of bombing hazard in that location.

Thus, the code recommends that protection of buildings housing direct war work be carried to stage B everywhere and to stage C in areas exposed to frequent or to steady bombardment. Where the work contributes importantly but only indirectly to the war, protection should be to stage A in low-hazard areas, B where bombing might be frequent, C where it might be heavy and steady.

• **Stage A for Safer Area**—Work with



Webs for the wingribs of military planes are packed meticulously for shipment, ready for immediate assembly by the aircraft manufacturer. Variety of prefabricated parts is indicated by packed boxes in background.

EVERY FIRE IS SABOTAGE TODAY!



One of the outstanding attributes of free enterprise is organized *fire prevention*, led for the last three-quarters of a century by the capital stock fire insurance companies.

This leadership has been effective because, in the American way of life, it has had the cooperation of government and people. Many lives and properties have been saved.

The fire-awareness of every industry and of every community is today resulting in a 40% reduction in the rate of destruction by fire compared with that in World War I. But steady progress is not enough—today. War calls for extra effort, extra speed. Fire Prevention engineering services early enlisted to help cut fire and

accident losses in war plants, cantonments, munition depots, docks and military hospitals. Expert advice is being utilized constantly to avoid fire's disruption of vital production and transportation.



Today, even the most innocent kind of thoughtlessness that results in the burning of property is aid to the enemy.

Most fires are preventable...Vigilance in eliminating the causes of destructive fires will help your Country. "Not to waste one hour, not to hold back one blow"...not to lose a single unit of property to fire!



THE NATIONAL BOARD OF FIRE UNDERWRITERS, 85 John St., New York • Est. 1866 • Nation-wide organization of the capital stock fire insurance companies

FIRE PREVENTION WEEK • OCT. 4-10



On the home battle front, in the offices and plants of American war industry—just as on the far-flung battlefields—swift, dependable Communications are vital to victory.

AMPLICALL Intercommunication swiftly links the battle stations of your business to the "GHQ" (General Headquarters) of executive control.

AMPLICALL saves you and key men in your business precious working hours each day. It puts you in speedy talking contact with every department and every individual you want, without anyone leaving his desk! It's the wartime way to save time, today's precious commodity.

And that's not everything—it relieves your telephone switchboard of blockades—enables you to gather essential information speedily while you hold important incoming calls. AMPLICALL prevents costly delays and errors—pays its own way every day in time, energy, and money saved. No wonder executives everywhere say they wouldn't part with AMPLICALL for many times its cost!

No matter what your business may be, there is an AMPLICALL System (capacities from 2 to more than 100 stations) to serve your exact needs. Write us today for complete details!

Rauland

**LET US SHOW YOU HOW
AMPLICALL CAN SERVE YOUR BUSINESS . . . !**

THE RAULAND CORPORATION
(Rauland-Webster Sound Division)
4245 North Knox Ave.
Chicago, Illinois Dept. 1-OC

Send us full information covering
Amplicall Intercommunications Systems

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Address _____

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ELECTRONEERING

for victory on the battle front and on the home front is the sole concern of The Rauland Corporation. Pioneers in the engineering and manufacturing of electronic equipment in the fields of Radio, Sound, Communications and Television . . . Rauland serves the war effort exclusively.

only incidental relationship to the hazard areas, B elsewhere. Nonwar activity should be protected to stage C only in extreme hazard areas.

Business men will have to decide for themselves the degree of hazard to which their buildings are exposed. For the guidance of F.W.A., the War Department has prepared a hazard map but it is a deep military secret.

Protection at stage A is limited to surveying the building and drawing up plans for more elaborate protection when this becomes necessary, training of air raid warden and similar crews, provision for blackout of areas where night work must be done, designation of the least unsafe portions of the building as shelter areas, and provision of standby fire and air raid alarm and phone service.

- **Subdivide Corridors**—At stage B plans should be laid for future provision of new air raid shelters. Blast protection should be provided for communication centers and guard rooms. Entrances to the shelter areas should be protected; roofs of such areas should be strengthened; protection should be provided against flying glass.

Where the shelter area is a long corridor, it should be subdivided by blast-proof walls at intervals such that no more than 100 people will be stationed between walls.

Standby power should be provided for lighting and pumps, and provision should be made for emergency water supply and ventilation.

- **Concrete Box**—The preferred blast protection is a 12-in. reinforced concrete wall or 13-in. reinforced brickwork. Also acceptable is 30 in. of sandbags, 24 in. of sand or gravel between wood or iron sheathings, or 15 in. of mass concrete.

At stage C, new air raid shelters should be built if feasible. They may be placed in or outside of buildings, should ordinarily be above ground. Recommended design is a reinforced concrete rigid-frame box, 8 ft. high and not more than 10 ft. wide or 35 ft. long. Floor and roof should be 6 in. thick, walls 12 in. The roof should be designed to carry the anticipated debris load. Transverse interior walls should be provided at 13-ft. intervals, permitting design of the roof as a two-way slab.

- **Dig in at Stage C**—Other precautions to be taken at stage C include provision for complete, long-continued blackout. Blast protection should be provided for all first and second story windows. Emergency sanitation — preferably chemical closets — should be provided in shelter areas. Large work areas should be subdivided by blast-proof walls into areas of not more than 5,000 sq.ft.

The code also contains an appendix of suggestions for carrying out recommendations (Superintendent of Documents, Washington). Price has not yet been determined.

NEW PRODUCTS

Stenoscribe

After a "machine shorthander" has taken stenographic notes of correspondence, speeches, or group meetings on the Stenotype, and it comes time to transcribe them from the accordion paper tape, she or any other transcriber will find the work considerably facilitated by the Stenoscribe.

It is a new transcribing stand manufactured by the Stenoscribe Corp., De Land, Fla., and marketed exclusively



by the Stenotype Co., 4101 S. Michigan Ave., Chicago. Built of nonstrategic materials, it holds two full folds of the tape at eye level. Two new folds are brought into position, either forward or backward, from a deep-tray by an easy flick of the fingers on a wheel. The easel is easily adjustable to the most comfortable working position.

Ironless Andirons

If your old andirons have been donated to the metal salvage campaign, but you still have a fireplace in your office or home, you can burn wood to take off winter's chill and stretch out your supply of rationed furnace fuel by using "War Dogs" Ironless Andirons.

Edwin Jackson, Inc., 175 E. 60th St., New York, molds them out of a tough variety of fire brick clay which will stand higher temperatures than iron. Their name is derived from "Fire dogs," the English term for andirons. They come in two functional designs, both painted black.

Air Express Estimator

To provide a quick means of approximating the cost and flying time of any air express shipment, the Air Express Division of Railway Express Agency, 230 Park Ave., New York, has worked out a simple Air Express Shipping Estimator, available without charge to any shipper. It is a pocket-size, paper slide rule with a map of United States and Canadian air routes printed on one side. You get your mileage and flying time

A large, stylized graphic of a chain-link fence runs vertically down the page. On the left side of the fence, there is a large anchor. To the right of the anchor, the word "INTERNATIONAL" is written in a bold, sans-serif font, with each letter enclosed in a separate rectangular frame. There are also small upward and downward arrows pointing towards the word. The background behind the fence and anchor is a textured, light-colored surface.

WHEN you need chain—be it to lift pig iron for the forges of war or merely to tie "Bossie" out in the pasture—get in touch with International. ★★ International makes chain for every regular need: Industrial, marine, farm, or tire. ★★ In addition, we are prepared to counsel with your engineers on jobs involving unusual chain problems. We cordially invite your inquiry.
International Chain & Mfg. Co., York, Pa.

TODAY'S PACKAGING PROBLEMS

Solved by

Patapar Vegetable Parchment

It's a fact that packaging some products efficiently is worrying many businesses today. No wonder, with the supplies of so many materials cut off.

If you're in a quandary—
INVESTIGATE PATAPAR!

A grease-resisting boil-proof paper

Patapar resists grease, fats, oils. It can be soaked in water indefinitely. It can even be boiled without harm.

For years butter, meats, fish, cheese, milk, vegetables and other food products have been enjoying Patapar protection. Today Patapar has new roles. It is pinch hitting for oiled silk. It is helping in the packaging of dehydrated foods. It is being laminated with paper board containers to make packaging units for many products formerly packed in tin cans. In countless other ways this unique paper is filling important needs.

BUSINESS EXECUTIVES:

If there's a problem in your business you think Patapar could solve, write to us in detail. We'll give you the help of all our experience.

Paterson Parchment Paper Company
Bristol, Pennsylvania

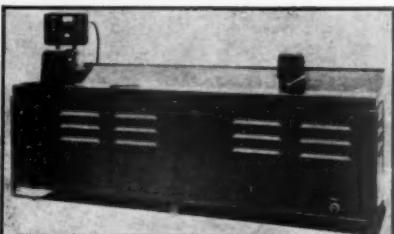
*West Coast Plant: 340 Bryant St., San Francisco
Branch Offices: New York, Chicago*

Headquarters for Vegetable Parchment since 1885

from the map, set a scale to the weight of a particular shipment, and read off the approximate cost in less time than it takes to describe the operation.

Magnetic Inspector

Hidden flaws in steel parts for planes, tanks, guns, machine tools, and other



essential mechanisms are shown up magnetically by the Ferroscope, new product of the Western Industrial Engineering Co., 3301 Medford St., Los Angeles. Any part up to 10 ft. in length is clamped between two contact plates, sprayed with a quick-drying solution of ferrous oxide, subjected to a magnetizing current.

Ferrous oxide particles build up unmistakably over otherwise invisible surface or subsurface breaks, checks, blow holes, grinding cracks, slag inclusions, or variations in granular structure due to faulty heat treatment. Surplus solution drains away through the cabinet for reuse. If necessary, any parts that might interfere with compass operation in planes or ships can be quickly demagnetized.

Wood-Swiveled Chair

Squeaks and consequent oiling problems promise to be eliminated in the



new swivel mechanisms developed by the Sikes Co., Inc., 20 Churchill St., Buffalo, N. Y., for its new line of Velveturn Business Chairs. Chair spindles are made of straight-grain maple. They revolve in laminated wood hubs which are fitted with two graphite-impregnated plastic bearings. Chairs will be available in both executive and clerical models.

LABOR

Workers West

Kaiser's need for help is Mrs. Rosenberg's opportunity, and result is a demonstration that New York isn't forgotten.

Henry J. Kaiser was the biggest factor in the New York City labor market this week. The West Coast shipbuilder's agents were hiring 20,000 men out of the city's pool of jobless, which has been estimated at 400,000. The new hands will be transported on chartered trains to Portland, Ore., and Vancouver, Wash., where they will be put to work on a shipyard assembly line. Rail fare of \$75 will be deducted from subsequent pay checks.

• **Publicity Coup**—Kaiser's long-distance hiring became in 24 hours one of the best publicized jobs of labor recruiting ever undertaken by a private employer. The play which New York newspapers gave the Kaiser move was worth more advertising dollars than anyone could calculate, and it assured the shipbuilder of all the applications he could handle.

Behind the action was Washington pressure and the able politicking of Anna Rosenberg, newly appointed regional director of the War Manpower Commission. For months now, Mayor LaGuardia and his Business Advisory Committee have been beating a path to the capital to plead for war contracts for New York (BW-Jul.18'42,p35).

• **Missed by Boom**—With the city's principal fields of employment in consumer goods, financial, and service trades, the wage earner group has been caught in the backwash of the war boom. Unemployment has been growing, and there has been much talk at civic affairs of "the biggest ghost town since Nineveh."

For the most part, the city's plight got little more than sympathy in government quarters. New York's small scale industries presented real conversion problems, and military policy was opposed to building huge new factories in an area that is, relatively, only a short flying distance from Europe. It became apparent that the most expeditious way of handling Gotham's unemployment problem was to bring the unemployed to jobs rather than jobs to New York.

• **An Opportunity**—This presented a made-to-measure opportunity for Mrs. Rosenberg, whose standing at the White House is no longer news. As director of the New York region for the Social Security Board, she had been concentrating her interest on the work of the

United States Employment Service, the SSB branch which has had the biggest war role. When a reorganization move last week put USES under the jurisdiction of the War Manpower Commission (BW-Sep. 26'42,p5), Anna Rosenberg became Manpower Commissioner Paul McNutt's New York director.

Mrs. Rosenberg needed only a brief conversation with Kaiser to induce him to send his agents to Manhattan.

• **A Complication**—The whole project almost missed fire, however, because Kaiser jumped the gun. His recruiters opened a New York office and began hiring before Mrs. Rosenberg's USES tied into the program. More than 1,200 men were taken on in the first day. Protests were made by some New York employers, who charged that essential workers were quitting to sign on for West Coast jobs. Some quick telephoning straightened it out, and at the close of the first day's business, Kaiser representatives announced that they would only interview applicants referred to them by USES.

In two days, two USES offices sent Kaiser interviewers 4,000 applicants who had been screened from more than 7,900 who wanted to sign up. USES administered a simple health check, determined draft status, age, citizenship, and did its work so efficiently that less than 2% of those referred to the Kaiser agents were rejected.

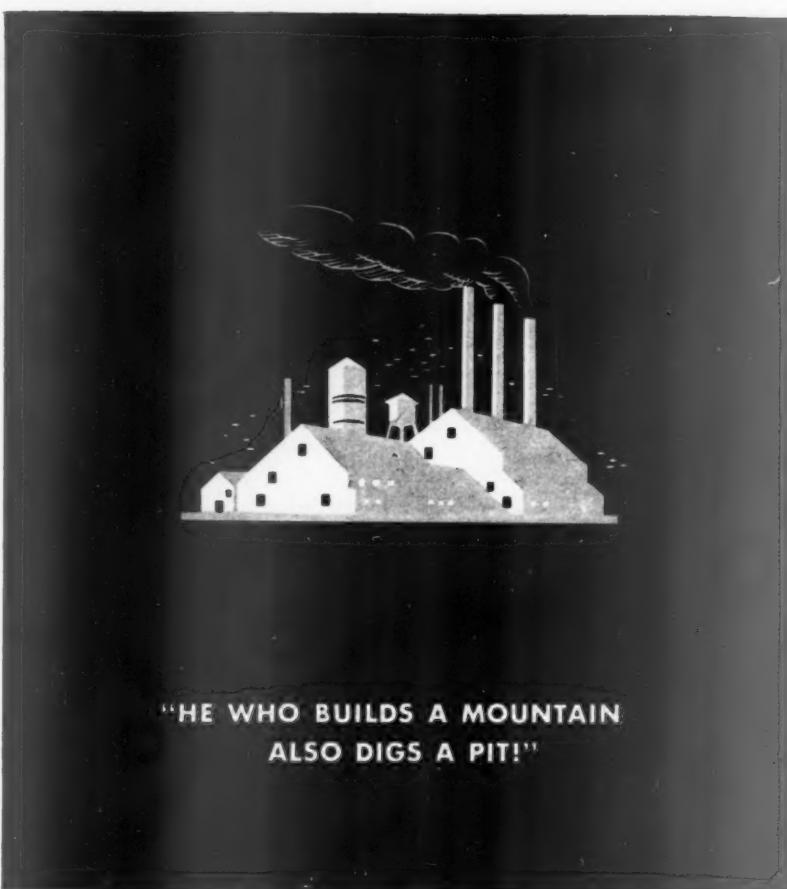
• **Five Special Trains**—By the end of the week, the Kaiser men acknowledged that the flood was more than they had bargained for, that hiring would have to stop for a while until arrangements could be made to transport and house the new employees. Five special trains left over the week end. The first 5,000 of the transplanted New Yorkers will live in specially constructed barracks in Portland at a minimum living cost of \$13.50 a week.

Men hired were advised not to bring their wives and families "right now." This comforted New York merchants who were disturbed by the exodus.

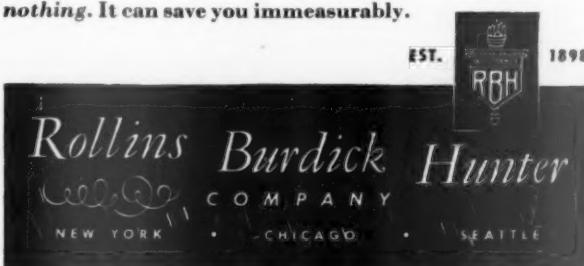
• **What's Offered**—The great bulk of the new men hired were assigned jobs as "laborers" at 88¢ an hour rate. They were told that they would work a 48-hour week, with time-and-a-half for the eight hours over 40. Other jobs filled in New York were for "helpers" at 95¢ an hour, journeymen at \$1.20, and sub-foremen at \$1.45. All were promised special bonuses for night shift work.

Each man taken on had to indicate his willingness to join the A.F.L., with which Kaiser has closed shop contracts. Initiation fees come to \$20, which may be paid in a lump sum or prorated over 20 weeks.

Kaiser's agents planned to begin hiring again this week on a smaller scale, hoped to have the full complement by Christmas, when the West Coast should be able to house the migrants.



With the transition and expansion of many industries to a war pattern, the problems of legal and contractual liability, and property protection, are much more complex. Your insurance program may be adequate. But unless you are sure, in building the mountain you may also have dug a pit of hidden hazards. • In this war of production, every plant must be kept operating at top speed. Every breakdown of a vital machine, every man-hour lost through needless accident, every waste through preventable fire—increases the dangers of too little and too late. • We can help you maintain operating schedules by eliminating hidden hazards and reducing loss possibilities. This service costs you nothing. It can save you immeasurably.



NATION-WIDE SERVICE IN ALL LINES OF INSURANCE

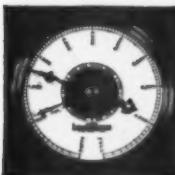
We Don't Grope Blindly When Measuring Valuable Stored Liquids... We Check With **LIQUIDOMETER** Tank Gauges
"THEY'RE ALWAYS DEPENDABLE"

Now, more than ever, industrialists realize the importance of having accurate measurements of their stored liquids available at all times.

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which Charlie Chaplin made famous in "Modern Times." In the courses, to be taken by 6,000 employees, 16 hours of instruction are boiled down to two and 24 textbooks of efficiency are condensed into six basic principles.

Alcoa's Hot Spot

Truce in latest walkout at Cleveland may contain some of the essential elements of lasting peace; 1,500 workers idle.

In the ten months since Pearl Harbor, wildcat strikes and slowdowns have disrupted operations at the Cleveland plant of the Aluminum Co. of America (BW -Jun. 13 '42, p85) 12 times. The 12th strike, which began Sept. 22 with 75 negro workers in the ingot plant and spread to 1,500 others, ended four days later in a truce which may contain some of the essential elements of a durable peace.

• **The Irritants**—What precipitated the latest disruption was a National War Labor Board directive increasing bonus rates of 600 hammermen and helpers in the forging plant to narrow differentials between aluminum forging and steel forging. Wages of other Cleveland Alcoa workers, among them the ingot plant employees, were not affected by the directive.

An additional irritant was the protraction of negotiations between Alcoa and C.I.O.'s Mine, Mill & Smelter Workers over production changes which the union charged were bonus cuts in

disguise and which the management had submitted to time study.

• **NWLB May Sit in Saddle**—Full details of the ultimate truce were withheld, but it was hinted strongly that at the first sign of a 13th strike, Alcoa's Cleveland labor relations will be handled by NWLB directive. It was established that both the company and the union were given two weeks to reshuffle their organizations in the interests of permanent peace.

The management had to promise to do something about so-called labor-baiting plant bosses. What M.M.S.W. promised was another secret, but it was indicated that International Representative Thomas F. McGuire would replace Edward T. Cheyfitz, Alex Balint, and Peter Zvara in union operations.

• **Behind the Turmoil**—While the underlying causes of Alcoa's labor troubles in Cleveland defy definition, they seem to boil down to factional differences within the union resulting in a lack of worker discipline, and failure of the company to win the confidence of negro workers in the vital ingot division.

Another sore spot is the multiplicity of government agencies—NWLB, WPB, National Labor Relations Board, and Army Air Forces' plant protection officers—which have intervened in disputes but failed to take firm action. Still a fourth factor is agitation for economic equality for negroes.

FORD-U.A.W. PACT

The C.I.O. United Automobile Workers Union appears to have achieved its principal goals in negotiations with Ford Motor Co. for a new contract. As the proposed agreement goes to the union membership for approval, most of the disputed points have been handled as the union wanted them (BW-Jun.20'42,p50).

• **Wages Left to NWLB**—The check-off and the union shop are to be continued. Grievance procedure is to be speeded. More committeemen are specified. Wage raises, of course, are under negotiation before the National War Labor Board.

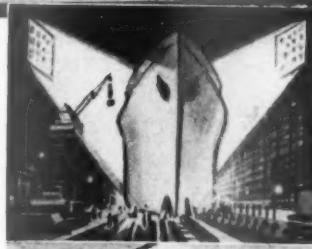
The company won a point when a clause giving shop committeemen unlimited time (at Ford's expense) to settle grievances was tempered with the declaration that such privileges be not abused. The committeemen will work at their regular jobs when not engaged in grievance negotiations. It was agreed that demoted foremen may regain seniority, although union sentiment is generally opposed to such provision.

• **Stiff Penalties**—The company won its major victory in a stiff set of penalties for misconduct. "Assault of fellow employees, brawling or fighting on company property" is punishable by layoffs of two weeks or longer, or by discharge. "Disobedience to proper authority" can henceforth be penalized by layoff of a day or more, or discharge. Other rules infractions also can bring discharges.

LINEUP FOR C.I.U.

Four big units and a number of smaller ones were scheduled to be represented at the organization meeting of the Conference of Independent Unions opening in Chicago, Oct. 3 (BW-Aug. 1'42,p53). Committed to the C.I.U.'s program of avoiding anschluss with A.F.L. and C.I.O. are the Mechanics Educational Society of America, sponsor and angel of the original meeting; Associated Unions of America, a Wisconsin federation; Assn. of Communication Equipment Workers, part of the Western Electric Independent Labor Assn., and United Brotherhood of Welders, Cutters & Helpers.

Several big independent unions and lots of little ones still are on the fence. Not coming in are the more than a dozen independents which met recently at Grand Rapids (BW-Sep.26'42,p38) to form a federation under J. J. Griffin of the Society of Tool & Die Craftsmen, opponent of M.E.S.A.'s and C.I.U.'s Matt Smith (BW-Aug.22'42, p78). Also aloof because they are organizing another national body are the independents in several electric power utilities whose United Utilities Union of America meets at Chicago later in the month (BW-Aug.1'42,p54).



TO BUILD MORE SHIPS to beat the Axis, an Eastern shipyard needed more light for night work. 232 large floodlights had to be on the job with only a fortnight to go!

FACTORIES MAKING FLOOD-LIGHTS WERE JAMMED with priority work even before this emergency order arrived. Warehouse stocks were touching bottom. There were two strikes on the GRAYBAR Man who sought to meet the delivery date.

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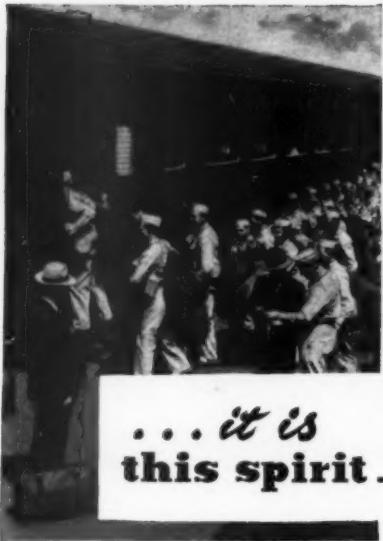
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It is this teamwork, this spirit of cooperation between civilian travelers, the railroads, and military authorities, that makes America invincible . . . that gives our fighting men the confidence and courage — to go places and do things!



**Norfolk
and Western
Railway**

Payoff on a Tip

Wisconsin Central 4's ran up from 12½ to 35; suddenly the bonds dropped to around 18. Now comes the attorney general.

For the last three months, securities dealers have been watching the New York attorney general's office to see what it would turn up in its investigation of the odd behavior of some Wisconsin Central bonds last spring. Early this week they got their answer. The attorney general brought suit to close up the over-the-counter house of Hanson & Hanson, charging that it had rigged the market and unloaded about \$450,000 worth of bonds on the strength of misleading statements.

• **Purchase Rumor**—The official charges sketch a picture of garden variety manipulation that has been familiar to security markets ever since the days when pioneers traded glass beads for beaver pelts. They accuse Hanson & Hanson of running up the market price of Wisconsin Central 4's by circulating various rumors about their prospects. Main selling point, according to the charges, was a supposed inside tip that Canadian Pacific would pay a fancy price for the issue to regain control of Wisconsin Central.

The bonds in question are a low grade rail mortgage, in default since 1936. Last February they were rocking along comfortably at about 12½. In the next five months, they climbed spectacularly, reaching a peak of 35 in June. On June 30, Canadian Pacific spoiled the fun by announcing flatly that it had no interest in buying up the issue. Overnight the 4's plummeted back to about 18, and since that time they have stuck there.

• **Basis of Charges**—During this period, the attorney general charges, Hanson & Hanson were telling their customers that Canadian Pacific would buy the issue at anywhere from 25 to 65. At the same time they were buying steadily on the Stock Exchange, where the sales were recorded, and unloading in the unlisted market. The accusation is that on balance Hanson & Hanson picked up around \$25,000 while their customers stand to lose about \$70,000.

In most respects the charges are run of the mill, but there is one feature of the case that may stir up trouble for the whole securities business before it is settled. This is the question of making purchases on the Stock Exchange and offsetting them with simultaneous over-

the-counter sales. The authorities have been running into a lot of trouble with this type of operation, and many think that tighter regulation of the markets is the only way to handle it.

• **How a Job Is Screened**—When a stock trades on the Big Board as well as over the counter, it's an easy thing to let the exchange ticker advertise purchases while outside sales don't show up any place. The trick is to buy on the Stock Exchange, creating the impression of strong demand, and at the same time sell over the counter.

Working in this way, an operator can start out with a little block of an inactive security and boost the listed price by buying on the exchange. Then he sells his block in the unlisted market, and buys on the exchange again. Continual purchase runs the listed price up nicely, and by steady selling the sharper takes his profit as he goes along so that he doesn't get caught when the ride is over.

• **Some Spectacular Ones**—In spite of its possible repercussions, oldtimers in the securities business refuse to be impressed with the Hanson & Hanson case. Current headlines, they say, produce nothing to compare with the Whitney trial or with the Continental Securities case in which seven investment trusts faced charges of siphoning \$10,000,000 out from under their creditors. In both number and size today's swindles are penny-ante stuff.

What statistics there are back up the oldtimers' argument. Records of the attorney general's office provide several yardsticks for measuring the volume of the swindling business. All of them show that the shady financier has had a thin time of it in the last few years.

• **Swindlers' Holiday**—In 1941, New York authorities made only 27 arrests for security fraud, and the year before only 37. In 1939, on the other hand, they chalked up 82, and in 1938, the score was 76.

Volume of restitutions, which gives a rough measure of amounts involved, tells the same story. Last year authorities shook about \$171,000 out of New York swindlers. In 1940 restitutions came to \$353,000, and in 1939 the shorn lambs got back \$575,000 worth of their fleece.

• **It's the Lack of Excitement**—The recent slump in swindling has little to do with morality. It results from general dullness in security markets. Shady operators thrive when the market is active and their victims are thinking in terms of magnificent killings. In a long bear market, the get-rich-quick speculators usually give up trading instead; the field is left to cagey investors.

That's when tricky salesmen start losing weight. Authorities are sure that if the long awaited boom ever comes, a new crop of frauds and fancy swindles will come with it. Until then, they think that most of the sharping will stay on a small change basis.

Rules on Capital

SEC seems about ready to step in and settle argument over minimum requirements for N.A.S.D. members.

It is beginning to look as though rebellious members of the National Association of Securities Dealers have won a round in their fight with the board of governors over minimum capital requirements (BW-Aug. 1'42, p61). The Securities and Exchange Commission has withheld approval of the new rules for almost two months now. Many counter men expect it to draw up its own set of requirements instead of letting N.A.S.D. complete the job it initiated.

• **Mood for Compromise**—If SEC lays down the law, neither side will get all it wants, but by this time both are in a mood to compromise. The board of governors probably wouldn't mind surrendering the thankless job of setting minimum requirements so long as someone sets them. And if there must be minimum capital rules, the opposition would rather see them made by the commission than by N.A.S.D.

In any case, SEC's decision will settle the bitter fight that began early last summer when the board of governors first proposed minimum requirements for its members. A small but influential opposition fought the idea from the first. When a vote of the membership approved the proposals, minority leaders appealed the case to SEC. The commission held hearings last August and suspended operation of the rules while it made up its mind.

• **The Broader Picture**—If the commission draws up its own rules, there's a chance that it may set a minimum even stiffer than the N.A.S.D. proposals (\$5,000 for a dealer who does his own clearing; \$2,500 for one who clears through others). The big difference is that SEC rules would apply to all of the 6,000 listed dealers, not just to the 2,600 members of the association.

Many counter men are afraid that if N.A.S.D. makes the rules, small dealers will just drop their memberships and operate uncontrolled. Making the rules apply to all firms would answer this objection.

• **Hits Wrong People**—A good many dealers, some of them fair-sized houses, don't want to see minimum capital

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DEPARTMENT BW-10

MILWAUKEE, WISCONSIN



THE MARKETS

It has been a bit like old times in Wall Street for the last week or so. The stock market put on a burst of moderate activity and tried hard to go up. Chart followers plotted the averages eagerly and argued about the signals which indicate a bull market. The Atchison, Topeka, & Santa Fe declared a \$2.50 dividend, 50¢ higher than anybody had expected. One or two brokers even began to grumble about surtax rates in the new revenue bill.

• **A Horizontal Line**—Traders crossed their fingers and watched prayerfully when the market began to show signs of action. For the past two months the averages have been tracing out a horizontal line, varying only a couple of points in either direction. According to the Dow theory, when the market breaks out of a line it usually signals which way it is going from there.

It's still too early to read much from the averages, even if you believe in them, but the volume of trading has given the bulls a lot of encouragement. Volume has consistently dried up when prices eased and snapped back when they showed signs of rising. A week ago, for instance, the market had its biggest day of the year, with more than 850,000 shares turning over. That day it gained almost a point. Later when prices faltered, volume dropped back to around 400,000.

• **Orphans of the Week**—All this, of course, is no consolation for owners of some of the hard-hit stocks. Gold mining shares were the orphans this week, following a report that WPB wanted to close down gold mines and transfer their workers into copper.

American gold mining shares dived for the cellar as soon as the news came in. Homestake slid down 2½, and Dome

dropped 1½. In contrast, Alaska Juneau and McIntyre Porcupine, a Canadian company, lost only fractions.

• **Treasury Flotation**—In the government bond market, biggest news of the week was the Treasury's decision to float \$4,000,000,000 worth of new securities in October. This is by far the largest operation the current financing program has produced, and it tops everything on record except the old Liberty Loans.

Most traders guess that the Treasury won't do much in the short-term market, which is still busy digesting last month's \$3,000,000,000 issue of notes and certificates. They think Secretary Morgenthau will let medium-term bonds carry most of the load this time. There's also a fair chance that he will open up the 2½ tap issue, which has proved itself good for \$1,000,000,000.

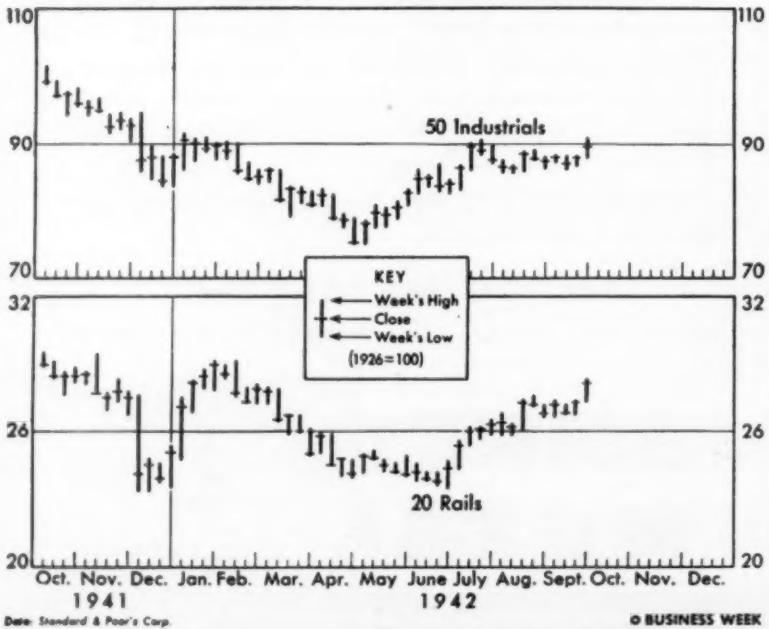
• **Reserve Ratio Affected**—Size of the Treasury's borrowing program makes it probable that the Federal Reserve Board will knock another 2% off reserve requirements for New York and Chicago banks. This would bring them down to 20%, putting them on the same basis as the so-called reserve cities.

SECURITY PRICE AVERAGES

	This Week	Week Ago	Month Ago	Year Ago
Stocks				
Industrial	89.7	88.0	87.6	101.5
Railroad	28.2	27.3	26.8	29.1
Utility	31.2	30.7	30.0	43.7
Bonds				
Industrial	110.4	109.6	108.9	105.2
Railroad	87.0	86.8	85.8	84.1
Utility	106.5	106.3	104.7	107.1
U. S. Govt.	110.0	110.1	110.4	111.6

Data: Standard & Poor's Corp. except for government bonds which are from the Federal Reserve Bank of New York.

COMMON STOCKS—A WEEKLY RECORD



rules of any sort, regardless of how inclusive. They argue that character and experience are the important things. Capital requirements, they insist, hamper the capable dealer without bothering the crooks and incompetents.

The N.A.S.D. board of governors takes the opposite viewpoint. It wants to back up its ethical standards with financial regulation of its members. Too many dealers, it believes, are risking insolvency by working on a shoestring basis. Its ambition is to clean out the shaky operators so that membership in the association will carry more professional prestige (BW-Jun.27'42,p89).

• **Tighter Reins Seen**—Leaving the problem in SEC's lap would settle the fight temporarily, but counter men don't like to see the commission tighten its grip on the unlisted market. One regulation, they think, is likely to lead to another, and minimum capital requirements may be just the starting point for a program of close government regulation.

Auto Rate Cut

Insurance companies give 20% reduction on bodily injury (none on property) because of gasoline rationing.

Knowing that automobile owners are determined to extract some good from the ill wind of rubber and gasoline rationing, casualty insurance companies have decided to head off trouble by readjusting rates. This week the National Bureau of Casualty and Surety Underwriters and the Mutual Casualty Rating Bureau announced that gas-rationed areas would get a cut of 20% in the rate on bodily injury liability.

• **How It Scales Down**—Holders of A ration books get the full 20% reduction, effective Oct. 1. Companies will rebate on policies written after July 22, the date when rationing went into effect. Drivers with B and C books get a 10% cut. Rates for commercial cars remain unchanged.

The new rates automatically take effect in 12 of the rationed states. In four others—New York, New Hampshire, Virginia, and North Carolina—rates are regulated by state authorities who are sure to follow the lead of the rating bureaus as soon as they can. Massachusetts, however, fixes rates by statute, and it may be some time before the authorities can haul their system into line with the rest of the rationed area.

• **No Property Cut**—Reductions apply only to bodily injury liability, not to property damage. Underwriters have been having a rough time with property damage lately, and they expect even

more trouble in the future. Rising labor costs and shortages of materials have driven up the cost of repair work. As a result, the companies have been taking heavier losses on their property coverage.

Casualty underwriters say frankly that the rate reduction is an experiment, and they intend to keep a watchful eye on the automobile situation. The 20% figure is pretty much an arbitrary guess. Companies haven't yet had time to accumulate sufficient data on liability losses under the new traffic conditions. Ordinarily the underwriters would have waited until they could work out a statistical basis for new rates, but they knew that restive car owners wouldn't take to the idea. To the policy holder ordinary arithmetic demonstrates that reduction in mileage and speed will give reduction in accidents.

New Hazards Arise—Actuaries agree that the number of accidents will probably fall off, but they are uneasy about using shot-in-the-dark methods to adjust rates. Bad tires and mechanical failures may do a lot to offset the effects of lower speed limits. Blackouts and dimouts are an unpredictable factor that keeps a lot of insurance men worrying.

Underwriters also expect the average liability on accidents to go up. Ride sharing plans have increased the number of passengers to a car, which is likely to result in a larger number of injuries per accident. Added to this is the fact that high living costs and rising wages make claim settlements more expensive.

Moreover, if the volume of liability insurance shrinks rapidly, rates may have to go up to carry the overhead. For the time being, however, underwriters aren't worrying much about this. Automobile coverage hasn't shown any signs of drying up yet, and most insurance men expect it to hold up pretty well for the next few years.

NOW IT'S RATION-BANKING

Using an upstate New York district as a test tube, the Office of Price Administration plans to experiment with a system of "ration-banking" similar to the British method. Object is to work out a checking system for ration coupons which will have the flexibility of a bank account.

The plan will have no effect on consumers, but it is designed to make rationing easier on the wholesaler and retailer. Under the present system a merchant takes his coupons to his local board. In ration-banking, he would deposit the coupons with a commercial bank, draw nonnegotiable "checks" for his wholesaler.

All this means extra expense for the banks, but OPA has promised to pay costs. One object of the Albany experiment is to get a measure of the plan's expense.

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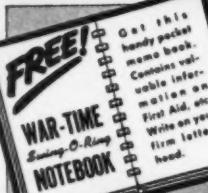
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BUSINESS ABROAD

Winning on Production Front

For first time, United Nations will catch up with Axis in tools of war this winter. Shipbuilding now runs ahead of sinkings. Meanwhile, Japan's New Order strains resources.

Rains soaked the battlefields of northern Russia this week, and the battle-scarred ruins of Stalingrad were white with the season's first frost, but the practical-minded Russians knew that for the next six to eight weeks they must count on themselves rather than on the weather to hold back the Nazis.

And in the Pacific, the United Nations struck furiously in the air at the Japanese both in the Aleutians and in New Guinea, but little territory changed hands on either side.

Allies Catch Up

However, production fronts made news, for there are fresh signs of strain in the Axis camp while the United Nations are coming into the six winter months that will, for the first time in the war, give them the tools to meet their foes on something near an equal footing. United States shipyards produced almost a million tons of freighters and heavy tankers in September, and by the end of the year, shipping officials

believe they will hit a production stride of 1,200,000 tons.

This means that during the next six months the United States will deliver between 7,000,000 and 8,000,000 dead-weight tons of ships to swell the massive convoys that are already shuttling with increasing speed across the Atlantic and Pacific to the Allied fronts which have been more or less quiet for the last few months.

To this spectacular increase in our Victory fleet will be added another 2,000,000 tons of ships that are being built in Canada, Australia, Britain, and India, making a total of 9,000,000 to 10,000,000 tons of additional shipping in the next half year.

Running Ahead of Sinkings

No official record of ship sinkings is any longer available, but with the success of the American coast patrol in driving submarines off the East Coast and out of the Caribbean, sinkings since July are believed to have declined to a



TOUGH GOING

First step in building the chain of airports and emergency landing fields the Army is constructing in Alaska is to complete the roads leading to the

fields for transporting supplies. Heavy equipment, like the "Caterpillar" Diesel tractor with Le Tourneau crane (above) which is lowering a bridge cap into place, is needed to push through the rough country.

ate which does not now amount to more than 6,000,000 tons a year. This means that if no more than 3,000,000 tons are lost in the next six months, the United Nations will have a net increase in tonnage of 6,000,000 to 7,000,000 tons, or an increase in the total shipping pool of between 15% and 20%.

Japan Hits Trouble

Though most of this new tonnage is most sure to be used in the Atlantic, there will be important additions to the Pacific fleet at the very time when Japan is reported to be running into production troubles, which are bound to hit Nippon's shipbuilding industry.

According to a pessimistic report in *Stahl und Eisen*, one of Germany's leading trade journals, Japan's shipyards even if they work at absolute capacity—could not double Nippon's present merchant tonnage in less than ten years. Latest reports to *Business Week* indicate that Japan probably will not launch more than 600,000 tons of merchant vessels this year (BW—May 25 '42, p36). This, on top of Japan's urgent need for all kinds of new machinery to cope with the vastly increased demands of the occupied territories, probably accounts for the establishment of a new Berlin office by the Japanese Steel Trust. Surprises the smug "Stahl und Eisen": Tokyo has expanded its New Order in East Asia so rapidly that Japanese industry and Japanese technicians are now forced to ask Germany for advice and—possibly later this year—for an exchange of goods through the Middle East.

Boom in Planes

In the field of airplane production, Japan's outlook is apparently more promising. In a revealing survey based on the best information available in this country, *Aviation*, a McGraw-Hill publication, points out in its current issue that Japan will probably produce 20,000 planes this year and is in a fairly good position to maintain output at these levels unless Japan is seriously bombed. According to *Aviation*, Nippon's airplane output has risen rapidly in recent years:

1933.....	2,140
1934.....	2,445
1935.....	2,750
1936.....	3,060
1937.....	3,365
1938.....	4,000
1939.....	6,000
1940.....	10,000
1941.....	15,000
1942.....	20,000*

* Estimate.

Though Japan boosted steel production from 2,300,000 tons in 1929 to 8,000,000 in 1939 (compared with current United States production of more than 86,000,000 tons), much of the iron and coal are imported.

But in the case of light metals used in



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★

the airplane industry, Tokyo is in a more favorable position. Japan has been self-sufficient in the production of magnesium since 1935 and in the four years through 1939 increased its output 1,000%.

Though Tokyo imported fairly large quantities of aluminum from Canada, the United States, and Norway before the war, large bauxite deposits are available at home and in Manchukuo, and the Japanese can easily produce the aluminum necessary to make 20,000 to 25,000 planes a year.

Plants for Chile

New trading company buys unused factories which can't be converted, sends equipment to South American republic.

The Chilean government, faced with a shortage of imported daily necessities, has worked out a novel plan to buy second-hand equipment in the United States.

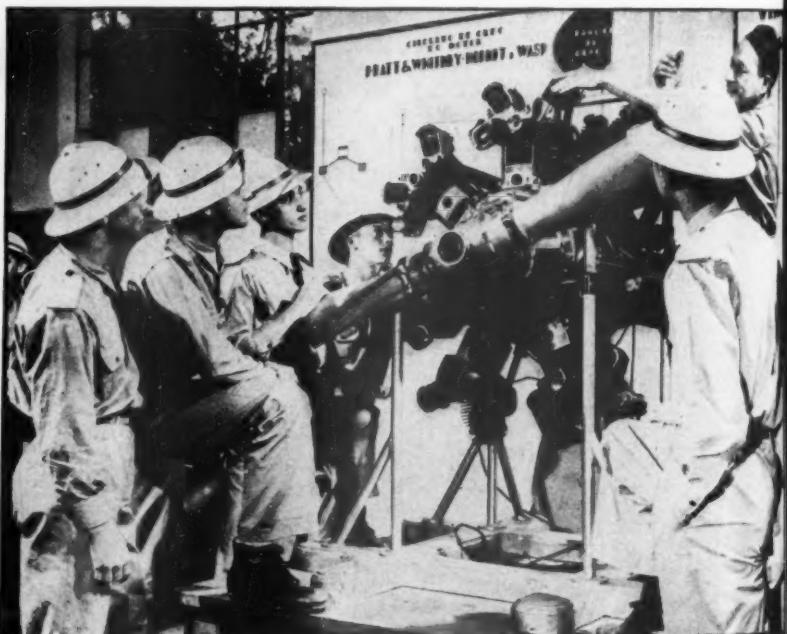
Some time ago, Santiago officials established an official trading agency in New York, known as the Chilean Trading Corp. Purpose of the new organization is to locate second-hand equipment that can be bought and shipped to Chile.

• Accomplishments So Far—Working in full cooperation with Washington war officials, the Chileans have uncovered a number of small factories which have become inactive because of the shortages of materials but which, at the same time, cannot readily be converted to war production. Since Washington is cooperating with all the Latin American governments on plans to replace basically much of the consumer goods that can no longer be imported, no equipment is purchased by the Chileans without Washington's approval and the assurance of shipping space for the southbound trip.

One of the first purchases of the CTC was the buildings and equipment of the Metropolitan Cement Corp., Thomas A. Edison, Inc., property located at Piscataway, N. J. Principal items from that plant were the kinds which have since been shipped to Chile. Coolers, cranes, structural steel, and other metal equipment were sold to the Defense Plant Corp. and to the U.S. Navy.

More recently CTC has purchased another Edison cement plant at New Village, N. J., and moved the essential equipment to Coquimbo where a large new Chilean cement industry is being established.

These deals have released considerable quantities of scrap metals and rubber which were sold to American agents or contributed to local scrap drives.



CLASS IN AIR POWER

A group of Brazil's air cadets absorbs the fundamentals of military aviation from an instructor who illustrates his points with a cutaway of a U. S. Pratt & Whitney motor. Since Brazil en-

tered the war against the Axis, Washington has redoubled its efforts to strengthen our southern Ally's air force. Dakar, France's African base for which Hitler is maneuvering, is only 1,600 miles, as the bomber flies, from Brazil's coast.



U.S. ROLLS-ROYCE

Sir Charles Bruce-Gardner (right), chairman of the Society of British Aircraft Constructors, examines with George T. Christopher, president and general manager of the Packard Motor Car Co., the Rolls-Royce engine now being built in Packard plants.

COLOMBIA'S TRADE LAW

There was a hubbub in Colombia this week as protests began to roll in from abroad over a law passed a few weeks ago which demands that all companies doing business in the country have Colombian agents. Big United States interests exploit the oil reserves of Colombia and operate huge banana and coffee plantations in the country.

Colombians, though eager to encourage native development of the country's resources, deny any intention to discriminate against foreigners, say the law will be modified.

MEAT BY AIR

Bolivians are experimenting with airplane shipments of fresh meat from the country's lush lowlands on the eastern side of the Andes to the commercial centers of La Paz and Potosi high in the mountains. First shipments arrived safely a few weeks ago, and the meat sold at reasonable levels even though the merchants carrying out the experiment reported a good profit.

WHAT IS RATIONAL?

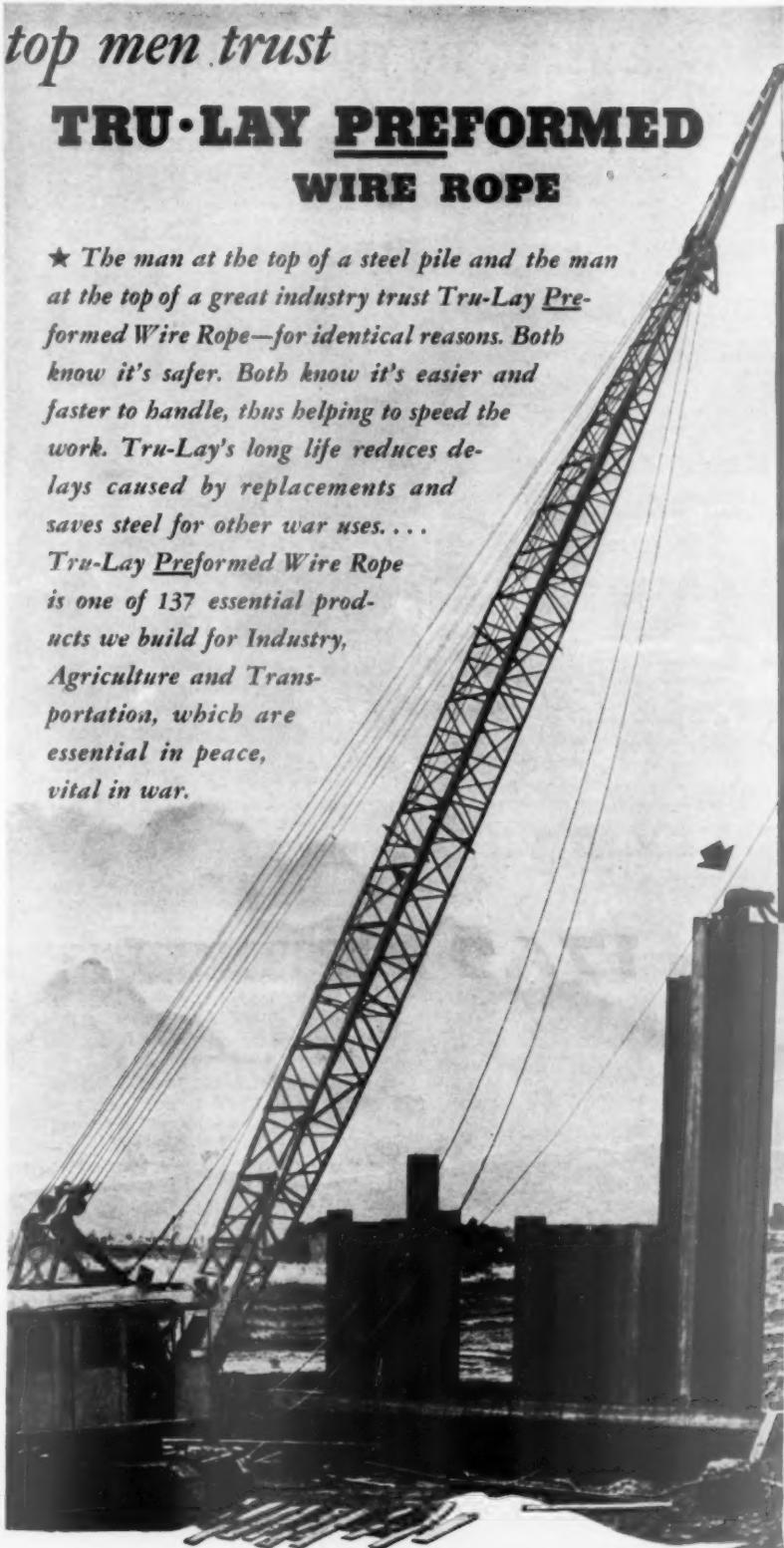
The Nazi radio announced this week that a second group of 4,000 French industrial plants are to be closed because they are "not operating in a rational manner." This follows the recent ruling that French labor will be conscripted for work in Germany.

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TIGHTER TIES WITH BRAZIL

Watch for a steady tightening of economic ties between Brazil and the United States.

The recently-appointed technical mission, headed by Morris L. Cooke (BW—Sep. 12 '42, p30) has arrived from Washington and is already surveying Brazilian industrial plants which, with some special machines from the United States, can quickly be converted to the production of war materials.

At the same time, the Rio government has completed a deal with the Export-Import Bank in Washington for a loan of \$14,000,000 which will be used to extend present rail lines to the vast iron ore reserves of the interior. Equipment is arriving regularly from the United States for the big new steel mill which is being built north of Rio de Janeiro.

A number of old transport planes have already arrived from the United States to provide a new shuttle service up and down the Amazon where United States purchasing agents are collaborating with Brazilians in developing the production of many tropical products in the steaming Amazon Valley.

Rubber tops the list. To expedite the collecting of latex from the vast forests of the upper Amazon, Brazil is undertaking to transplant 100,000 workers and their families.

OIL TRADE ALLOCATED

A new foreign trade pattern—which provides a foretaste of the way in which more and more of the world's trade will be conducted for the duration—was revealed this week when London and Washington announced that all purchases of fats and vegetable oils in the future would be handled by the Combined Food Board of the two nations, with each country operating alone in specified regions.

Supply sources allocated to the United States are: all of North and South America and the Caribbean Islands (with the exception of Argentina and Uruguay); Tahiti and all Free French Pacific Islands; Portuguese and Spanish Africa, and Liberia.

Allocated to the United Kingdom are: Argentina and Uruguay; all British Empire territory except the regions in the Western Hemisphere specifically assigned to the United States; Free French Africa, and the Belgian Congo.

Once collected by the two governments, the supplies will be pooled and allocated among the various United Nations according to recommendations of the Combined Food Board. Where possible the Boards will operate through existing dealers but every shipment will be controlled by the government and all distribution will be according to the specification of the Boards.

THE TRADING POST

A Woman Complains

A librarian in a middle-western city tells how "thousands of women" feel about giving up their nylon hose.

Your article on hosiery (BW—Jul. 11 '42, p42) is very interesting, and was probably written by a man. But the hosiery manufacturers are very much mistaken if they think they can coerce women into wearing the old silk (?) stocking. Or even rayon.

Women were given a glorified hose several years ago, and that is what they want now. Nylon hose came, conquered and disappeared within a short time and now the women are rebelling good and strong. They are willing to go without meat, but a good fitting hose, NO!

These substitutes which are being thrust upon us this fall are terrible, last no time and certainly don't look as good as nylon.

Years ago my hose bill was much more than I should have allowed on my budget. When the nylons came, my hose were good looking, they dried within an hour, and although they were more expensive, my bills were low. Two pair lasted for months.

The reason the merchants gave for the lack at first of nylon hose was that the material was needed in the army. Now they are advertising coats and other things made out of nylon, and the women are up in arms about it. They claim this is made from scraps of nylon, but could not the scraps be manufactured into hosiery?

The women all over are saying the manufacturers found that the nylons lasted too long for their own convenience, and of course you can see why. Is it just one more racket? Nylon is made from AIR, WATER and COAL . . . isn't there plenty of these ingredients to continue making nylon, and if it is machinery, why can't they alter old machinery?

Women are so tired of getting garments which are satisfactory and then within a short time, they are unobtainable. Of course one can see why the manufacturers do this, but it is not fair. If only the merchants would record the women's complaints instead of their own opinions, things might be different.

This summer, women all over wore no hose, and they will continue to do this if they are not able to purchase a good hose hereafter. Why try to make rayon hose and part silk when nylons were exactly right?

I am complaining for thousands of women, not for myself alone.

An Editor Answers

Thank you for your interest in the article on hosiery in our July 11 issue. Since I was responsible for the article, the editor has asked me to acknowledge your letter.

As a woman and stocking-wearer, like yourself, I can appreciate your dissatisfaction with rayon hosiery, particularly in comparison with nylon to which we have become accustomed in the past two years.

In fairness to the hosiery manufacturers, however, I should like to correct your impression that nylons have been withdrawn because they "lasted too long for their (the manufacturers') own convenience." Nylon was withdrawn from the hosiery market

early last spring by E. I. Du Pont de Nemours, which invented it, because the company's entire production was required to fill government orders. The principal wartime use for nylon is in parachutes; there are, however, many others.

It is true that air, water, and coal are the basic raw materials of nylon. However, conversion of these ingredients into nylon yarn requires the use of many chemicals and other agents, some of which are under strict priority control and obtainable only to fill the most essential war orders. It is, unfortunately, not possible to convert existing machinery to the production of nylon yarn; even if this were possible, it would require the use of essential metals and other materials. Plant capacity for producing nylon intermediates and yarn has been almost doubled since last fall, and a further doubling is contemplated. Government orders will absorb this entire increase, so it is unlikely that any nylon will be available for civilian use until the end of the war.

It is true that coats and other articles are now being made of nylon waste, left over from war production. This waste is in the form of many small, chopped-up odds-and-ends of thread. It is suitable for making a fleece-like fabric, but it cannot be woven into the continuous filaments necessary for stocking manufacture. It has been used to make "spun nylon" stockings, but these resemble a rough-textured woolen sports hose. Few women would consider them acceptable for street or dress wear. As a matter of fact, the government has just discovered a war use for nylon waste, so it is unlikely that even this will be available in any quantity in the future.

Since women were willing to pay a considerably higher price for nylon stockings, I believe most manufacturers considered themselves fully compensated for the fact that nylon outwore silk and rayon. In this connection, it is pertinent to note that, although silk stockings certainly gave the consumer much better service than rayon, no quality manufacturer attempted to work with rayon until his supplies of silk and nylon were exhausted. Most manufacturers find that the production costs on rayon stockings are heavy in proportion to the price consumers will pay for them. In other words, they are not very profitable.

Most manufacturers have been working with rayon for only a few months. Consequently, they are only now beginning to adapt their production processes satisfactorily to the new fiber. They are learning that rayon requires special sizings, constructions, and knitting techniques. Some manufacturers have experimented longer than others and are producing much more satisfactory stockings as a result. All that the consumer can do is shop around among the various brands of stockings until she finds one that is moderately satisfactory.

As you point out, women have an alternative to wearing rayon hosiery—wearing none. As a matter of fact, due to wartime demands for the various textile fibers, it is not unlikely that, before long, the production of even rayon hosiery will be insufficient. In this event, women will be left with only the alternative. **W.C.**

* Features of Bardco emergency and continuous duty plants that justify the vital tasks they are performing include: special automatic controls, patented Bardco voltage regulators that operate without tubes, springs or moving parts, and automatic synchronizing equipment. For the duration, the armed forces exclusively are benefiting from these developments—after the war, all America will enjoy new standards of low-cost, dependable electric power.

THE TREND

THE PENALTY OF LEADERSHIP

World War I turned the United States from a debtor to a creditor nation, from a great raw materials supplier to the greatest industrial power in the world. But the transition came too quickly for Americans to grasp the scope of the responsibilities that went with their new position. It was a blindness of the same sort that made the British fail to see that they had lost the power to pursue alone their traditional bold and vigorous foreign policy.

But now World War II is finishing the job started 25 years ago. Without design or effort, the United States is acquiring the mantle of world leadership worn by France in the eighteenth century, by Britain in the nineteenth. Momentous decisions are reached in London and Moscow, and the voice of Chungking speaks with slowly mounting authority. But it's to Washington that the world now turns for leadership.

It is an inevitable development despite America's persistent reluctance to play the rôle (except on a humanitarian basis), and the time has now come when this country's leaders—both political and economic—must acknowledge the responsibilities which are so rapidly being imposed on them.

• **Without the powerful support of the British Navy and the courageous aid of hundreds of loyal Dutch, Norwegian, Greek, and Free French seamen, the United States could hardly have withstood successfully the combined fury of the Axis attack until we were organized to fight and until new reinforcements are ready for our fleet. But before this war ends, our two-ocean Navy will be completed and we shall almost surely have supplanted Britain as the world's greatest naval power.**

Faced with this fact, and remembering last Dec. 7, dare we drop back to our old Monroe Doctrine isolationism? Or can we accept new responsibilities in the Far East but again refuse to assume any obligations in Europe? Or—chastened by our experiences in this war—will we feel definitely that it is our responsibility to maintain an overwhelmingly powerful Navy and to use it to police the world?

• **American technical missions** (there are already more than 100 of them in Latin America) are scouring the world for new supplies of raw materials, or working feverishly in such remote places as the Belgian Congo, Peru, India, and Iran to build new industries, highways, bridges, and airdromes which will speed the war effort. And American soldiers—many of them with a background of merchandising, manufacturing, engineering—already man 32 different fronts stretching from Iceland to the tropical Solomons.

Are these traveling Americans willingly going to settle back and sell brushes or radio tubes in Dodge City and Kokomo? Or will they be part of a new flood of Ameri-

cans ready and eager to play a part in developing the backward regions of the world?

• **Deliveries of lend-lease materials to our allies have already passed the \$5,000,000,000 mark and this aid is now flowing out of the United States at the rate of \$8,000,000,000 a year. And in his last accounting to the nation, the President revealed that a total of nearly \$63,000,000,000 is now available for lend-lease (our total loans during and after World War I barely topped \$10,000,000).**

Is young America going to foot this bill with never a question of a tariff policy which in the last 25 years refused to take into account the fact that the United States had shifted from a debtor to a creditor nation without making any provision for our creditors to pay us in kind? Or are there fresh young minds which will find a way to buy masses of noncompeting world products and, in so doing, create vast new foreign markets for the refrigerators, electric fans, packaged foods, and radios which thousands of backward foreigners are now seeing for the first time at our distant military outposts? Only if we have such vision will this country become a great center for international commerce. And only if our bankers have the same broad vision can we assume the financial leadership so skillfully handled by London for more than a century.

• **It is perhaps not surprising that the first to recognize the profound changes taking place should be London rather than Washington. Edward H. Carr, chief editorial writer of the London *Times*, faces the problem boldly in his recent book, "Conditions of Peace," when he declares:**

"The old world is dead. The future lies with those who can resolutely turn their backs on it and face the new world with understanding, courage, and imagination."

Actually as well as potentially, the United States will almost certainly emerge from the war as the strongest world power. (Washington claims that) the United States can out-produce any other two nations in the world. The claim is probably not exaggerated. Doubt exists not in the capacity of the United States to lead the world, but of their readiness to do so."

• **This is the war's challenge to the United States.** Whether we want it or not, world leadership—with all its demands for courage, imagination, and bold action—is being transferred to this country. No matter how overwhelming the problems of fighting the day-to-day battles of the war, Americans somehow must find time to plan the kind of peace they want. For on them already rests the responsibility for drawing up the pattern for the post-war world.

The Editors of Business Week

Business Week • October 3, 1942

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